

SMITHSONIAN INSTITUTION

FIVE-YEAR PROSPECTUS
FY 1987 - FY 1991



MARCH 18, 1986

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At the meeting of the Board of Regents, January 27, 1986, it was

VOTED that, subject to final consideration by the Executive Committee, the Board of Regents approves the Five-Year Prospectus, Fiscal Years 1987-1991, anticipating that annual revisions will similarly be presented for its approval.

The Executive Committee, meeting on April 9, 1986, approved the distribution of the following text.


Secretary

SMITHSONIAN INSTITUTION
FIVE-YEAR PROSPECTUS
FY 1987 - 1991
INTRODUCTION

James Smithson bequeathed the whole of his property "to the United States of America, to found at Washington, under the name of the Smithsonian Institution, an establishment for the increase and diffusion of knowledge among men." In so doing, he created a charitable trust, through the terms of which the United States would serve as trustee for purposes directed toward the benefit of all mankind. By the Act of July 1, 1836, Congress accepted Smithson's bequest, and pledged the "faith of the United States" to carry out its purposes. In the Act of August 10, 1846, Congress established the Institution in its present form and placed responsibility for management with a Board of Regents.

The Smithsonian is a unique establishment which is both publicly supported and privately endowed, and whose management is vested in an independent board composed of federal officials, Members of Congress, and private citizens. This arrangement has made possible the remarkable growth and achievements of the Institution during the one hundred thirty-nine years of its existence. Donations from both the public and private sector have increased its collections and continuing additions to its trust funds have expanded and nourished the Institution's usefulness. Appropriations recommended by successive Administrations and approved by successive Congresses have provided steadily increasing federal support for many of the Smithsonian's far-reaching services to the public. Through the development of the Smithsonian Associates programs, the Institution now has a nationwide group of interested supporters who sponsor many of its educational activities across the country. Annually thousands of service hours are provided to the Institution by dedicated volunteers.

The Smithsonian Institution's programs are devoted to public education, research, and service in the arts, sciences, and history. Centered on the Mall in Washington, D.C., the Institution also operates major facilities and activities elsewhere in Washington, across the country, and overseas. It is one of the world's leading research centers and encompasses the world's largest museum complex. Smithsonian collections contain more than 100,000,000 art objects, natural history specimens, and artifacts. The collections are displayed for the enjoyment and education of visitors and are utilized for research by staff of the Institution and by hundreds of visiting students, scientists, and historians each year. The research, management, care, exhibition, and security of its collections and a program of selective acquisition for the collections are basic institutional commitments; the natural areas for which the Institution holds a trust responsibility serve as important assets for future generations.

In addition to museum curation and exhibition, the Smithsonian conducts a wide range of other programs in order to carry out its broad goal of increasing and diffusing knowledge about Man, his culture, and his environment. Some of these are joint ventures in cooperation with other institutions, universities, and government agencies in the United States and on

virtually every continent. It manages a research station and nature preserve in Panama for the international scientific community; it conducts basic research on the propagation of endangered species; and it delves into the complexities of the universe through its astrophysical research programs. As an outgrowth of institutional research, fundamental data are assembled for use by planners and research workers in other organizations, both government and private, and national and international in scope. Historical research, which enhances knowledge of this nation's growth through studies of technological development, art, and folklife and folklore traditions, is also a major endeavor.

The results of the Institution's research are disseminated to a wide audience through books, monographs, articles in professional journals, exhibit catalogues, and education pamphlets. Public-oriented programs other than exhibits include performances, radio, television, films, Smithsonian Magazine, Air and Space Magazine, and other publications. In addition to the approximately 26,000,000 visitors annually to the Institution's museums, galleries, and zoological park, many millions more view Smithsonian traveling exhibitions, which appear throughout the United States and abroad, and the Institution's annual folklife festival.

In the fall of 1977, the Regents and the Secretary established a five-year forward planning process covering all activities of the Institution. This process has proven to be a useful mechanism for management to examine development alternatives and to communicate important results and information to the Office of Management and Budget, Congressional authorizing and appropriations committees, and to other interested constituents. The Five-Year Prospectus, FY 1987-FY 1991 is the eighth in a series of documents resulting from that action. The Prospectus should be read in conjunction with another publication, the Smithsonian Institution's Programs and Activities (January 1984), which provides background information on the programs of each of the Institution's operating activities.

The content of the Prospectus is arranged by the current major organization grouping of the Institution and corresponds to the assembly of the FY 1987 budget presented to Congress; i.e., Science, History and Art, Public Service, Museum Programs, and International Activities, with separate sections treating Special Programs, Associate Programs, Business Management Activities, and Administrative and Facilities plans. The Prospectus will incorporate the results of reorganizations in future years as they occur; for example future editions will describe the activities and plans of the Assistant Secretary for Museums, a new position which recently has been filled.

A draft Prospectus for this planning period was prepared and submitted to the Board of Regents September 16, 1985. On December 12, the President approved the Balanced Budget and Emergency Deficit Control legislation (Public Law 99-177). This measure has affected the final assembly of the Prospectus, usually occurring in January of each year, by necessitating considerable revision in the plans and projections contained in the September draft.

For 1986, Public Law 99-177 requires the Institution to absorb a 4.3% reduction in base FY 1986 appropriations levels contained in the Continuing Resolution approved December 19, 1985. The Institution has developed a spending plan to accomplish this during the balance of the fiscal year. In making the necessary budgetary reductions, the Institution sought to minimize the impact on the public while meeting its central responsibilities to conduct research and to maintain the national collections in art, history and science, held in trust for the American people. The cutbacks will, however, inevitably affect all facets of the Smithsonian's federal operations. The steps taken include selective hiring freezes, curtailment of equipment purchases for research and collections management, postponement or cancellation of a number of planned exhibitions, cancellation of a number of free public programs, cutbacks in travel in selected units and a reduction in the institution's publication program for scholars and the general public. Also, given the budgetary restrictions, it is not possible to institute extended summer hours in 1986. Reductions were made with due attention to the priority of important institutional commitments that must be met over FY 1986 and subsequent years. Such projects include the equipping of the Museum Support Center in Suitland, Maryland, to house and conserve the national collections and the preparations to occupy and open the Quadrangle, which will house the National Museum of African Art, the Sackler Gallery and important education programs.

Looking ahead to FY 1987 when potential reductions to the Institution's operating and other accounts could amount to several times those experienced in FY 1986, efforts are underway to identify and examine options for more significant savings. Areas being studied include program and support curtailments. Since the Institution's work is people intensive, with some 65 percent of its operating budget allocated to salaries and benefits, there is the inevitable prospect of substantial reductions to staff in all areas.

The FY 1986 4.3% reduction is not incorporated into the organization figures contained in Appendix I tables; this allows increases being sought in FY 1987 to build on the FY 1986 appropriation base and follows the FY 1987 budget submission to Congress. Table 4 in the Prospectus, however, does summarize the effect of the 4.3% reduction on FY 1986 appropriation levels by organization. Also, for this Prospectus:

- federal projections for the period FY 1988-91 are substantially less than those contained in the September 1985 version since they are based on the President's budget planning figures for the Institution as maintained by the Office of Management and Budget (OMB), and
- the text (Chapters and Appendix I) has been adapted to reflect these projections and to highlight and describe the kinds of general operational and facilities projects that would necessarily be foregone, held in abeyance, or maintained at some reduced level.

The President's budget planning projections for the Institution provide only for increases to accommodate necessary pay, inflation, and limited base

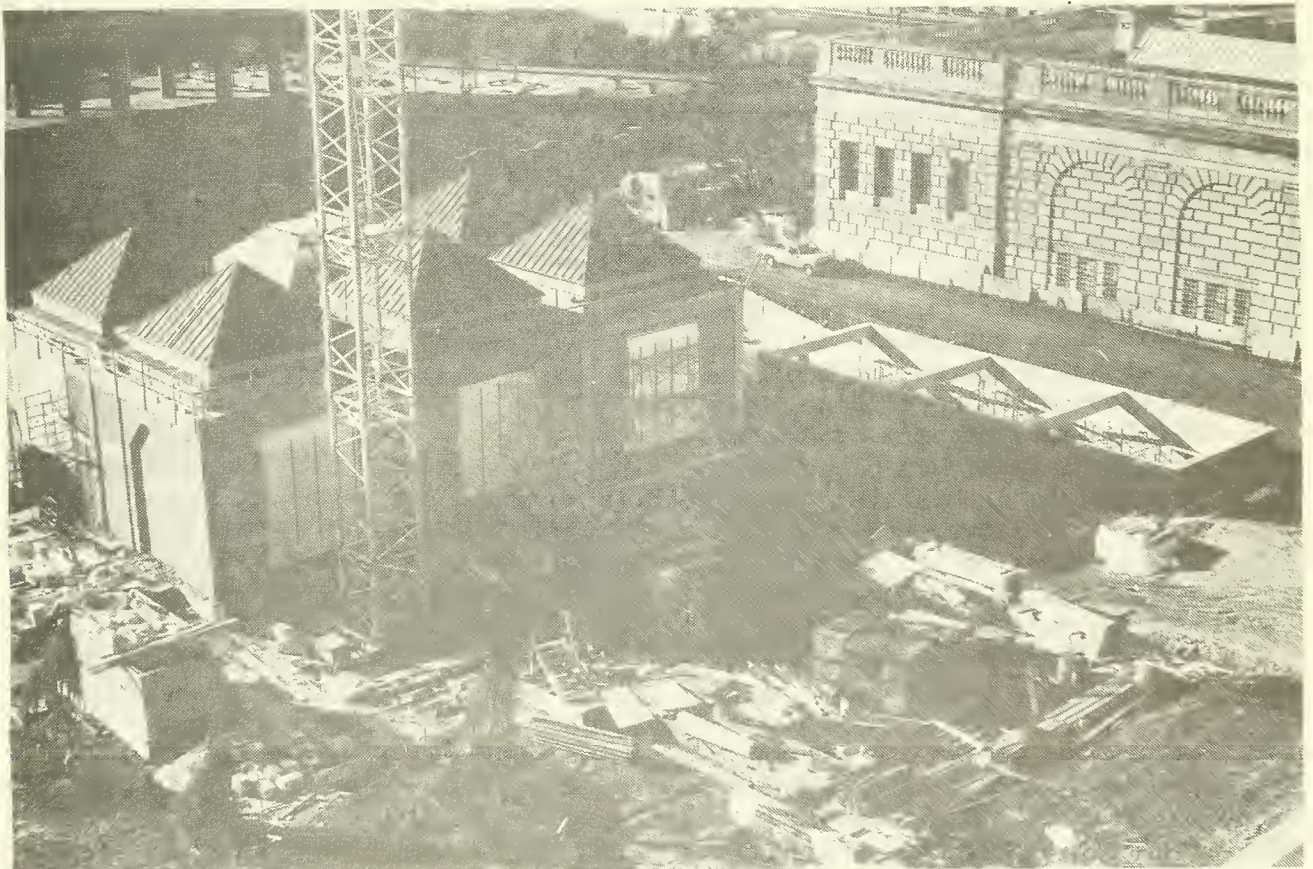
amounts for Quadrangle operations and other projects described later in this Introduction and elsewhere throughout the text and Appendix I. Under the prevailing circumstances and until more is known about the further impact of Public Law 99-177, the projections are the best possible, and perhaps optimistic.

Several items discussed in the text, along with the financial figures for FY 1987, complement the Institution's budget submission to Congress, and also appear in that document.

The Prospectus continues to reflect basic institutional interests that have been described previously. Areas of continued emphasis include research, acquisition and replacement of research equipment, security of collections and other property, automation of records and systems, and the maintenance of current facilities. Also, requirements for operating Quadrangle programs, activities in celebration of the Bicentennial of the Constitution, events in furtherance of recently initiated cultural activities with the USSR, and continued planning for activities related to the Columbus Quincentenary are incorporated for future years. The Museum Support Center at Suitland continues to need appropriate operating and equipment purchase resources for the activities to be housed there and these are phased into the Institution's projections. As a new effort, the Institution hopes to find private support and some federal appropriations for a project directed at improving the quality of science education in the nation's elementary and secondary schools through development of concepts and materials for better teaching. This is planned as a joint project involving the Smithsonian and the National Academy of Sciences. Facilities plans include phased work for the Zoological Park at Rock Creek and continued development of the Conservation and Research Center at Front Royal, Virginia; construction of the central laboratory and conference facilities for the Tropical Research Institute in Panama; and the successful establishment of the Quadrangle. Other projects are identified but not reflected in financial forecasts. Renovation and restoration of buildings are projected to continue, but at substantially reduced levels of fund availability than projected in September.

Through its trust operations, the Institution will continue to concentrate on ways to develop quality educational products for the visiting public and Associate programs; and to sustain growth in endowment reserves; enabling it to supplement important programs such as collections acquisitions, special exhibitions, fellowships, selected research investigations, conferences, and symposia of timely importance out of unrestricted trust funds and private donations. These sources also are being used to cover half of the construction costs of the Quadrangle. Trust funds, gifts, fund raising programs, and other arrangements are being used to help defray costs associated with selected plant or facility projects such as public restaurants, museum shops, and the Tropical Research Institute's laboratory and conference center.

Although present trust revenues are encouraging, the Institution's management feels only guardedly optimistic about any five-year projection of such income. Further sequestration of funds, if it affects museum hours of operations, could also affect income levels as from concessions, and the



Upper photo shows African Art pavilion exterior concrete block walls completed and initial planting of Magnolia trees. In lower photo, Sackler Gallery pavilion walls are also complete and loading dock trellis supports in place. Both photos taken from Castle's south tower

level of public accessibility to the Institution's products or services such as those performed by the National and Resident Associates.

Within the framework of financial and budgetary uncertainties, the Institution plans to pursue the following principal objectives over the next five years and beyond.

<u>Objectives</u>	<u>Principal Funding Source(s)</u>
<u>Operations</u>	
1. Open and operate the Quadrangle; establish major international exhibit, research, collections, and education programs.	Federal Appropriations, Nonappropriated Unrestricted Trust Funds, and private donations
2. Complete the first phase of equipping the Museum Support Center, and establish as an integral part of operations a collection conservation and conservation training program.	Federal Appropriations and Nonappropriated Unrestricted Trust Funds
3. Enhance the Institution's activities in national and international cultural, biological, and physical science research, and in humanities and arts scholarship. Emphasis will be placed on improving noncollection-based research studies through new techniques and technology.	Federal Appropriations
4. Maintain the level of technical assistance, equipment, and program funds which support collections-related and other original research by the Institution's professional staff. Priority is placed on stimulating innovative approaches for collaborative research with other countries and organizations, and on improving research through competition, outside peer evaluation, and fellowship programs for senior and aspiring junior scholars.	Federal Appropriations and Nonappropriated Unrestricted Trust Funds
5. Strengthen museum operations in the documentation and care of the collections; in development of new analytical programs, and automated security and information retrieval systems; and in conservation programs.	Federal Appropriations

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| 6. | Continue to produce exhibitions using contemporary techniques to communicate to the Institution's audiences information about recent discoveries, new technologies, and new results of scholarship in science, history and art. | Federal Appropriations
and Nonappropriated
Unrestricted Trust Funds |
| 7. | Continue to offer the nation outstanding magazines and other quality publications; utilize the latest technologies and methods to provide radio programs, recordings, and television and film presentations. | Nonappropriated
Unrestricted Trust Funds |
| 8. | Strengthen the National Collections for research and exhibitions through the acquisition of important objects and specimens. | Federal Appropriations,
Nonappropriated Unrestricted
Trust Funds, and private
donations |
| 9. | Maintain administrative, financial, and other support services to meet current and anticipated program needs. Areas of special emphasis include personnel, facilities management, audit, and library services to meet the total requirements of the Institution, and computer and automation services for improved documentation and control of the collections. Strengthening of equal employment opportunities and activities aimed at attracting and involving a more racially and culturally diverse audience will continue to receive attention over the planning period. | Federal Appropriations
and Nonappropriated
Unrestricted Trust Funds |

Facilities

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|----|---|---|
| 1. | Develop and equip the Quadrangle to accommodate the activities of the Arthur M. Sackler Gallery, the National Museum of African Art, and the International Center. | Federal Appropriations,
Nonappropriated Unrestricted
Funds, and private donations |
| 2. | Keep Smithsonian buildings in safe and functional condition with special emphasis on the provision of fire detection, containment, and suppression systems; access by handicapped persons; building exteriors, and energy conservation. | Federal Appropriations |

- | | |
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| <p>3. Continue phased development and planning of animal and public facilities at the Zoological Park in Rock Creek Valley, and improving the research, conservation, and visitor education facilities at the Zoo's Conservation and Research Center at Front Royal, Virginia.</p> | <p>Federal Appropriations</p> |
| <p>4. Continue internal planning for new and renovated facilities at the Smithsonian's Washington, D.C. and field locations for purposes of facilitating research and educational programs. Special facilities projects include those for the Tropical Research Institute in Panama; the Fred L. Whipple Observatory in Arizona; the Cooper-Hewitt Museum in New York; the Air and Space Museum at Washington/Dulles International Airport, and the General Post Office Building in Washington, D.C. for public use and enjoyment as a center for the exhibit and study of American art and culture.</p> | <p>Federal Appropriations, private donations, and other fund raising efforts</p> |

Summary Table 1 portrays the general levels of resources through FY 1991 using OMB's budget planning projections for the Institution. These incorporate increases for necessary pay and other uncontrollable costs, funds to make the Quadrangle fully operational, and continued equipment purchases for the Museum Support Center. Also incorporated are legislated pay changes in the range of three or four percent per year along with growth in federal nonpersonnel funds based on price changes for future years as derived from indices supplied by the Office of Management and Budget. Similar patterns are incorporated for trust projections allowing for only conservative growth in program support. Under these conditions, by FY 1991 resources from all sources for support of various operations would increase from FY 1985 levels of approximately \$326,000,000 to about \$469,000,000. ¹

The figures for FY 1987-91 are substantially less than earlier projections, and do not contain about \$40 million in increased levels of funding by FY 1991 for federal program and operating efforts projected last September 1985, prior to enactment of the Gramm-Rudman-Hollings legislation in December. Excluded are major additions envisioned for the pursuit of research at the Natural History Museum, the Tropical Research Institute, Astrophysical Observatory, and the Zoological Park, and for related research requirements. Additional amounts projected earlier for automation, computer

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An Appendix II was incorporated into earlier Prospectus' and presented a summary of inflationary effects on institutional projections. It was not updated for this edition because virtually all program growth has been eliminated from earlier institutional projections with the exceptions noted in the text, leaving only these increases necessary to cover the effects of inflation.

and other equipment, and technical support for the care and exhibition of natural history and zoological collections also are not contained in the projections. These general reductions in federal program requirements are spread throughout the science activities and amount to approximately \$19 million in growth beyond FY 1987 levels of funding projected earlier.

In a similar fashion, subsequent to passage of Public Law 99-177, projected requirements by FY 1991 have been reduced to eliminate about \$10 million in added resources for the history, art, and museum program operations. These were earmarked for such items as library needs, conservation training, and collections inventory and systems support, as well as some significant needs related to automation, refurbishment of exhibition halls, improved storage and collections care, and equipment and publications resources.

About \$6 million in growth beyond FY 1987 levels of resources have been eliminated for administrative and central support areas, which were originally projected to grow by only minimal amounts. This reduction principally affects areas such as the audit and investigative function, legal counsel, financial planning and procurement management, computer services, and the strengthening of security and plant maintenance services.

Quadrangle operations are contained within the FY 1987 submission to Congress at about \$12 million, but will need to grow to about \$14 million by FY 1991 because of continued needs associated with the establishment of the International Center, and the exhibits, education, and collections-related activities of the museums and other occupants. These requirements are incorporated.

Equipping the Museum Support Center continues to be a priority of the Institution. To this end the Institution's fiscal year 1987 request contains about \$5.5 million for equipment and related moving costs. In the ensuing years, requirements will fluctuate somewhat from this figure through fiscal year 1990 because of variations in the expected timing of orders and contracts. Museum Support Center equipment requirements, however, are incorporated over the period and are estimated at approximately \$1 million in fiscal year 1991 and annually thereafter for several years.

In addition, over the next several years the Institution will be seeking resources from a variety of sources to conduct research projects, seminars, lectures, exhibitions, and other public activities involving participants from other countries in connection with the Columbus Quincentenary commemoration; planning funds are contained in the fiscal year 1987 submission to Congress at \$245,000 with follow-on costs projected at this level through 1992, the final year of the celebrations. Additional funds for an exhibition and related work devoted to celebrating the Bicentennial of the Constitution also are included in FY 1987 for \$376,000.

Operations supported with nonappropriated trust funds and federal grants and contracts are expected to increase by approximately \$74,000,000. These increases involve primarily the revenue producing activities, including initial projections for the Air and Space Magazine, the Smithsonian Magazine and the Smithsonian Press, where production expenses are predicted

to increase considerably. Detailed forecasting of federal grant and contract activities is difficult to achieve, but the Institution expects some increasing support for various operations in future years; this forecast may change as a result of Public Law 99-177 and its effects on granting agencies. Finally, operations funded by restricted trust fund resources are expected to remain approximately stable, largely reflecting a conservative outlook for gift and grant support in future years.

The trust fund forecasts assume the Institution will make only measured progress in increasing capital reserves (endowments); approximately \$3,000,000 to \$5,000,000 a year is incorporated into the projections for this purpose. In addition, trust support for fellowships, special exhibitions, collection acquisitions, research, and other educational activities is projected to be slightly higher in future years if economic conditions permit, and if the Institution's auxiliary and revenue-producing activities continue to perform in a satisfactory fashion.

Major additions to physical facilities are not expected over the next five years or so other than the Quadrangle and the Research and Conference Center for the Tropical Research Institute. The Institution, however, plans to renovate eventually the General Post Office Building, now occupied by the International Trade Commission, although this is not expected to occur during the planning period. In a similar fashion, major projects still envisioned over the longer run include Rock Creek parking and aquatic exhibit facilities for the Zoological Park; the expansion of the Cooper-Hewitt Museum; the laboratories, dormitories and maintenance facilities for the Tropical Research Institute; and a base camp for the Astrophysical Observatory. Plans continue to evolve with regard to additional storage and exhibit space for the Air and Space Museum at Washington/Dulles International Airport, and for trust-funded modifications to the National Air and Space Museum's Mall building for establishing larger and more effective public facilities for food services.

Improvements will continue to other facilities, but at perhaps somewhat reduced levels or a slower pace. They include the installation of fire detection and suppression systems; the correction of other hazardous conditions; attention to access for disabled persons; and the provision of renovations, repairs, and maintenance to all Smithsonian buildings.

Notes on Financial Projections

The tables are designed to show trends in the Institution's future year resource patterns, and to reflect the narrative portions of this report. The FY 1985 figures are end-of-year expenditures and income. FY 1986 figures are those approved by Congress (exclusive of the 4.3% reduction for Public Law 99-177). They reflect the Board of Regents authorization to expend the FY 1986 appropriation and approval of the nonappropriated trust fund portion of the FY 1986 budget.

The FY 1987 figures are those contained in the President's budget submitted to Congress in February 1986. Figures for years FY 1988-1991 are based the President's budget planning projections for the Institution as maintained by the Office of Management and Budget.

Trust fund projections, as mentioned earlier, are vulnerable to fluctuations in the nation's economic climate. They are presented to help explain the expected use of these funds. Trust funds are composed of restricted and unrestricted funds. Unrestricted trust funds (general and special purpose) originate from a variety of sources including income from endowments and current fund investments; parking and food service concessions; sales of Smithsonian products based on designs and objects in the collections; the Resident and National Associate Programs (including Smithsonian magazine); and a publication program. In addition, certain bureaus have their own income-producing activities. Restricted trust funds include gifts, grants, endowment, and other income designated for specific projects and purposes by the donor. The Freer fund, the largest example in this category, is strictly controlled under the terms of the original bequest for the sole use of the Gallery.

There are three major purposes to which the unrestricted trust funds are applied. First, the operating expenses of the Associate Programs and revenue-producing activities, such as magazines and the museum shops, are totally funded from the earned income of these activities. Second, central management and administrative service units of the Institution, such as legal counsel, accounting, personnel, supply, and others, receive trust fund allotments funded almost entirely from the overhead recovery on grants and contracts administered by the Smithsonian and from administrative fees charged to trust-funded activities. General operating funds are also provided to various units for research and other specific purposes. Third, a variety of allocations for important institutional and bureau needs are made with the approval of the Board of Regents, such as the Collections Acquisitions, Scholarly Studies, and Education programs, and the Institution's fellowship programs.

After the three major categories of operating expense financed with unrestricted trust funds are met, the remaining unrestricted income is designated for three purposes. Funds are transferred to the museums and galleries in recognition of their assistance in the planning and conduct of museum shop, product development, and concession programs. These funds are used for the general operations of the recipient bureaus. A second designation is for improvements to the physical plant or land acquisitions. Finally, funds permitting, the Institution makes an annual transfer to its endowment for the purpose of providing income for rising costs in future years.

Income from nonappropriated trust fund sources including gifts, grants, endowment, current investments and revenue producing activities allow the Institution to undertake new ventures and enhance existing programs in a way that might not otherwise have been possible. Notable in this regard during FY 1985 was the establishment of a Special Exhibitions program to help support major temporary exhibitions. The highly successful Aditi exhibition held in the Evans Gallery of the National Museum of Natural History was one of the first of these specially funded exhibitions. Funding in FY 1985 for the Directorate of International Activities, which coordinates programs for the Smithsonian's new International Center, reflects a new emphasis on international exchange and cooperation.

Two ongoing awards programs are significantly augmented by trust funds each year: Fellowships and Scholarly Studies. The Fellowship program provides stipends to visiting scholars, enabling them to use the collections and resources of the Smithsonian. The Institution's Scholarly Studies Program makes grant awards covering research assistance, travel and special supplies to Smithsonian scientists and scholars for individual research projects. Research needs were also served in FY 1985 when the Institution allocated monies to convert the 24" diameter telescope at the Whipple Observatory on Mt. Hopkins, Arizona into a 48" diameter telescope.

Smithsonian collections benefit from trust fund availability. During FY 1985, for example, anticipating the opening of the Quadrangle, the National Museum of African Art acquired a notable collection of 61 objects, ranging in date from the 12th to the 15th centuries A.D. to the mid-twentieth century. In addition, monies were set aside for the Hirshhorn Museum to purchase contemporary art.

Substantial 1985 trust funds were also made available for computer enhancement, as the Institution continues its efforts to improve administrative efficiency and collections accessibility. It is anticipated in FY 1986 and future years like projects will be funded with trust monies providing the revenue producing activities continue to perform in a satisfactory fashion.

The other source of nonappropriated funding, federal grants and contracts, is made available to the Smithsonian by governmental agencies and departments to support specific types of research, educational, or other projects which the Smithsonian can undertake as a result of its expertise or its ability to respond quickly to certain kinds of needs.

Tables 1 and 2. Table 1 contains general levels of dollar resources (or revenues) from various federal and trust sources. Table 2 projects expenses by functional area of operation (Science, History and Art, etc.) along with the application of trust funds to such items as plant improvements, endowments, and special activities such as the Collection Acquisition, Scholarly Studies, and Education programs.

Table 3. Projections associated with programs and operating activities of units to be located in the Quadrangle, along with expected maintenance and support costs, are consolidated in Table 3 to provide an overview of the organizational resources involved in that new facility. Projections for FY 1987-91 remain the same as projected in September 1985.

Table 4. FY 1986 base appropriations are presented by organization, along with the impact of the 4.3% reduction as a result of Public Law 99-177.

Appendix I. Tables 5 through 13. These contain detailed projections for the Institution's museums, galleries, and laboratories. For ease of presentation, expenses associated with the various administrative, financial, and support organizations of the Institution are grouped into three categories in Table 13: (1) Central Management Offices, (2) Specialized Administrative and Technical Offices, and (3) Facilities Offices. The only major construction projects included are those underway or incorporated

into the FY 1987 budget request. For other projects (as contained in earlier Prospectus') detailed information and descriptions are contained in the Facilities chapter, but planning and estimating are being delayed pending more information and knowledge of the effects on the period FY 1987-91 of Public Law 99-177. Estimates of amounts and phasing of projects, as well as the possible sources of funding, are not contained in the projections.

SMITHSONIAN INSTITUTION
SOURCE OF OPERATING FUNDS
FY 1985 PROJECTED THROUGH FY 1991

(\$000)

Table 1

SOURCE OF OPERATING FUNDS	FY 1985	FY 1986	FY 1987	FY 1988	FY 1989	FY 1990	FY 1991
Federal Salaries and Expenses	164,321	176,995	190,061	199,312	199,716	211,484	211,870
.Plus cumulative effect of legislated pay changes	0	0	3,700	8,000	12,300	17,100	21,800
Subtotal	164,321	176,995	193,761	207,312	212,016	228,584	233,670
Nonappropriated Trust Funds							
Unrestricted General							
.Investments	4,137	4,500	4,370	4,450	4,500	4,550	4,600
.Gifts	37	50	50	50	50	50	50
.Auxiliary Activities	135,368	147,352	162,061	170,285	182,470	194,980	208,085
.Miscellaneous	233	80	50	50	50	50	50
Subtotal	139,775	151,982	166,531	174,835	187,070	199,630	212,785
Unrestricted Special Purpose							
.Investments	645	619	584	590	590	590	590
.Gifts	12	228	136	135	135	135	135
.Bureau Activities	5,792	3,756	3,675	3,900	4,000	4,100	4,200
.Miscellaneous	1,680	1,474	1,417	1,430	1,430	1,430	1,430
Subtotal	8,129	6,077	5,812	6,055	6,155	6,255	6,355
Restricted							
.Investments	3,639	3,902	3,801	3,950	4,100	4,250	4,400
.Gifts, Grants and Contracts	5,493	6,880	12,631	5,700	6,850	6,150	6,100
.Miscellaneous	805	887	919	950	950	950	950
Subtotal	9,937	11,669	17,351	10,600	11,900	11,350	11,450
Federal Grants and Contracts	15,653	15,815	16,381	21,855	22,482	19,869	14,576
Gross Income	337,815	362,538	399,836	420,657	439,623	465,688	478,836
Less Expenses of Auxiliary and Bureau Activities	(119,361)	(134,160)	(144,822)	(150,518)	(160,348)	(170,842)	(181,798)
Net Funds Provided	218,454	228,378	255,014	270,139	279,275	294,846	297,038

SMITHSONIAN INSTITUTION
APPLICATION OF OPERATING FUNDS
FY 1985 PROJECTED THROUGH FY 1991

(\$000)

Table 2 (1)

APPLICATION OF OPERATING FUNDS	FY 1985	FY 1986	FY 1987	FY 1988	FY 1989	FY 1990	FY 1991
<hr/>							
Science							
.Federal Salaries and Expenses	55,250	57,648	59,992	59,992	59,992	59,992	59,992
.Unrestricted General							
-Program and Administrative*	537	466	486	494	502	509	518
-Auxiliary Activities	0	0	0	0	0	0	
.Unrestricted Special Purpose							
-Bureau Activities	3,356	2,248	2,011	2,048	2,205	2,226	2,274
-All Other	4,168	2,062	2,053	2,088	3,371	3,893	2,572
.Restricted	2,957	2,738	4,952	3,222	4,284	3,260	2,663
.Federal Grants and Contracts	15,392	15,163	15,479	20,955	21,582	18,969	13,676
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Subtotal	81,660	80,325	84,973	88,799	91,936	88,849	81,695
<hr/>							
History and Art							
.Federal Salaries and Expenses	27,652	32,193	34,989	35,704	35,940	36,065	36,065
.Unrestricted General							
-Program and Administrative	1,866	3,201	2,711	2,685	1,707	1,233	1,255
-Auxiliary Activities	0	0	0	0	0	0	
.Unrestricted Special Purpose							
-Bureau Activities	812	708	723	728	749	771	793
-All Other	2,024	1,143	1,007	1,097	1,121	1,146	1,172
.Restricted	4,601	6,521	6,174	4,988	4,864	5,009	5,158
.Federal Grants and Contracts	114	59	50	50	50	50	50
<hr/>							
Subtotal	37,069	43,825	45,654	45,252	44,431	44,274	44,493
<hr/>							
Public Service							
.Federal Salaries and Expenses	2,294	2,325	2,404	2,373	2,373	2,373	2,373
.Unrestricted General							
-Program and Administrative	1,611	1,772	1,887	1,962	2,083	2,166	2,236
-Auxiliary Activities	13,645	11,975	13,100	14,230	15,340	16,480	17,235
.Unrestricted Special Purpose							
-Bureau Activities	75	57	58	60	74	83	95
-All Other	437	102	59	1	1	1	1
.Restricted	138	11	0	0	0	0	0
.Federal Grants and Contracts	0	0	0	0	0	0	
<hr/>							
Subtotal	18,200	16,242	17,508	18,626	19,871	21,103	21,940

* Net of SAO Overhead Recovery

SMITHSONIAN INSTITUTION
APPLICATION OF OPERATING FUNDS
FY 1985 PROJECTED THROUGH FY 1991

(\$000)

Table 2 (2)

APPLICATION OF OPERATING FUNDS	FY 1985	FY 1986	FY 1987	FY 1988	FY 1989	FY 1990	FY 1991
<hr/>							
Museum Programs							
.Federal Salaries and Expenses	9,763	10,831	11,454	11,514	11,614	11,664	11,664
.Unrestricted General							
-Program and Administrative	472	542	598	616	634	518	533
-Auxiliary Activities	1,561	1,840	2,005	2,100	2,190	2,275	2,365
.Unrestricted Special Purpose							
-Bureau Activities	54	48	47	70	75	80	85
-All Other	569	149	11	52	53	52	53
.Restricted	1,063	1,793	1,007	1,005	1,000	1,000	1,000
.Federal Grants and Contracts	15	1	0	0	0	0	0
<hr/>							
Subtotal	13,497	15,204	15,122	15,357	15,566	15,589	15,700
<hr/>							
Directorate, International Activities							
.Federal Salaries and Expenses	272	527	1,027	1,138	1,248	1,298	1,298
.Unrestricted General							
-Program and Administrative	370	618	829	752	772	793	815
-Auxiliary Activities	0	0	0	0	0	0	
.Unrestricted Special Purpose							
-Bureau Activities	0	0	0	0	0	0	
-All Other	0	100	150	150	200	200	250
.Restricted	0	210	327	300	300	300	300
.Federal Grants and Contracts	0	0	0	0	0	0	
<hr/>							
Subtotal	642	1,455	2,333	2,340	2,520	2,591	2,663
<hr/>							
Special Programs							
.Federal Salaries and Expenses	8,466	8,500	9,826	11,889	7,249	12,734	5,434
.Unrestricted General							
-Program and Administrative	884	1,085	1,194	1,165	1,204	1,239	1,276
-Auxiliary Activities	0	0	0	0	0	0	
.Unrestricted Special Purpose							
-Bureau Activities	84	9	6	6	6	6	6
-All Other	2,053	8,358	8,881	10,309	11,349	12,699	13,109
.Restricted	402	633	410	365	425	480	490
.Federal Grants and Contracts	43	592	852	850	850	850	850
<hr/>							
Subtotal	11,932	19,177	21,169	24,584	21,083	28,008	21,165

SMITHSONIAN INSTITUTION
APPLICATION OF OPERATING FUNDS
FY 1985 PROJECTED THROUGH FY 1991

(\$000)

Table 2 (3)

APPLICATION OF OPERATING FUNDS	FY 1985	FY 1986	FY 1987	FY 1988	FY 1989	FY 1990	FY 1991
Associates Programs							
.Federal Salaries and Expenses	0	0	0	0	0	0	0
.Unrestricted General							
-Program and Administrative	857	1,004	1,000	948	976	1,006	1,036
-Auxiliary Activities	68,214	85,036	91,421	92,540	97,955	103,750	110,225
.Unrestricted Special Purpose							
-Bureau Activities	11	10	12	13	14	14	15
-All Other	45	40	43	0	0	0	0
.Restricted	24	32	2				
.Federal Grants and Contracts	4	0	0	0	0	0	0
Subtotal	69,155	86,122	92,478	93,501	98,945	104,770	111,276
Business Management							
.Federal Salaries and Expenses	0	0	0	0	0	0	
.Unrestricted General							
-Program and Administrative	0	0	0	0	0	0	
-Auxiliary Activities	30,334	32,145	35,350	38,635	41,650	45,065	48,610
.Unrestricted Special Purpose							
-Bureau Activities	0	0	0	0	0	0	
-All Other	0	0	0	0	0	0	
.Restricted	0	0	0	0	0	0	
.Federal Grants and Contracts	0	0	0	0	0	0	
Subtotal	30,334	32,145	35,350	38,635	41,650	45,065	48,610
Administrative, Financial and Technical Services							
.Federal Salaries and Expenses	11,393	12,411	12,877	12,877	12,877	12,877	12,877
.Unrestricted General							
-Program and Administrative*	(319)	488	2,046	2,091	2,116	2,121	2,106
-Auxiliary Activities	79	0	0	0	0	0	0
.Unrestricted Special Purpose							
-Bureau Activities	1,095	84	89	88	90	92	95
-All Other	628	886	339	329	29	30	30
.Restricted	114	111	106	95	95	95	95
.Federal Grants and Contracts	0	0	0	0	0	0	
Subtotal	12,990	13,980	15,457	15,480	15,207	15,215	15,203

* Net of SI Overhead Recovery

SMITHSONIAN INSTITUTION
APPLICATION OF OPERATING FUNDS
FY 1985 PROJECTED THROUGH FY 1991

(\$000)

Table 2 (4)

APPLICATION OF OPERATING FUNDS	FY 1985	FY 1986	FY 1987	FY 1988	FY 1989	FY 1990	FY 1991
Facilities Services							
.Federal Salaries and Expenses	49,058	52,560	57,865	59,141	60,125	61,183	62,269
.Unrestricted General							
-Program and Administrative	1,422	1,606	1,733	1,785	1,837	1,892	1,947
-Auxiliary Activities	0	0	0	0	0	0	
.Unrestricted Special Purpose							
-Bureau Activities	41	0	0	0	0	0	0
-All Other	106	239	273	263	272	272	273
.Restricted	7	1	1	1	1	1	1
.Federal Grants and Contracts	0	0	0	0	0	0	
Subtotal	50,634	54,406	59,872	61,190	62,235	63,348	64,490
Adjustments for Inflation, Pay Requirements and Grade Reductions							
.Federal Salaries and Expenses							
-Necessary Pay	0	0	0	2,400	4,000	6,500	9,400
-Grade Reductions	0	0	(373)	(746)	(932)	(932)	(932)
-Inflation	0	0	0	3,030	5,230	7,730	11,430
-Supplemental	0	0	3,700	8,000	12,300	17,100	21,800
Subtotal	0	0	3,327	12,684	20,598	30,398	41,698
Institutional Total							
.Federal Salaries and Expenses	164,148	176,995	193,761	207,312	212,016	228,584	233,670
.Unrestricted General							
-Program and Administrative	7,700	10,782	12,484	12,498	11,831	11,477	11,722
-Auxiliary Activities	113,833	130,996	141,876	147,505	157,135	167,570	178,435
.Unrestricted Special Purpose							
-Bureau Activities	5,528	3,164	2,946	3,013	3,213	3,272	3,363
-All Other	10,030	13,079	12,816	14,289	16,396	18,293	17,460
.Restricted	9,306	12,050	12,979	9,976	10,969	10,145	9,707
.Federal Grants and Contracts	15,568	15,815	16,381	21,855	22,482	19,869	14,576
Gross Funds Applied	326,113	362,881	393,243	416,448	434,042	459,210	468,933
Less Expenses of Auxiliary and Bureau Activities	(119,361)	(134,160)	(144,822)	(150,518)	(160,348)	(170,842)	(181,798)

Table 2 (5)

APPLICATION OF OPERATING FUNDS	FY 1985	FY 1986	FY 1987	FY 1988	FY 1989	FY 1990	FY 1991
Net Funds Applied Before Transfers							
.Federal Salaries and Expenses	164,148	176,995	193,761	207,312	212,016	228,584	233,670
.Unrestricted General	7,700	10,782	12,484	12,498	11,831	11,477	11,722
.Unrestricted Special Purpose	10,030	13,079	12,816	14,289	16,396	18,293	17,460
.Restricted	9,306	12,050	12,979	9,976	10,969	10,145	9,707
.Federal Grants and Contracts	15,568	15,815	16,381	21,855	22,482	19,869	14,576
Net Before Transfer	206,752	228,721	248,421	265,930	273,694	288,368	287,135
Transfers: Out/(In)							
.Federal Salaries and Expenses	173	0	0	0	0	0	0
.Current Funds Transfers (Internal)							
-Unrestricted General	15,156	10,439	10,357	11,882	12,805	14,263	14,852
-Unrestricted Special Purpose	(15,156)	(10,439)	(10,357)	(11,882)	(12,805)	(14,263)	(14,852)
.Current Funds to Plant Improvement							
-Unrestricted General	20	22	0	0	0	0	0
-Unrestricted Special Purpose	0	0	0	0	0	0	0
.Current Funds to Endowment							
-Unrestricted General	3,000	3,000	3,500	3,500	4,500	5,000	5,500
-Unrestricted Special Purpose	14	100	0	0	0	0	0
-Restricted	129	417	107	110	113	116	119
Total Transfers	3,336	3,539	3,607	3,610	4,613	5,116	5,619
Net Changes in Fund Balance:							
Increase (Decrease)							
.Unrestricted General	66	(3,257)	(1,686)	(550)	799	1,320	2,276
.Unrestricted Special Purpose	7,713	173	407	635	(649)	(1,047)	384
.Restricted	502	(798)	4,265	514	818	1,089	1,624
.Federal Grants and Contracts	85	0	0	0	0	0	0
Subtotal	8,366	(3,882)	2,986	599	968	1,362	4,284
Net Funds Applied							
.Federal Salaries and Expenses	164,321	176,995	193,761	207,312	212,016	228,584	233,670
.Unrestricted General	25,942	20,986	24,655	27,330	29,935	32,060	34,350
.Unrestricted Special Purpose	2,601	2,913	2,866	3,042	2,942	2,983	2,992
.Restricted	9,937	11,669	17,351	10,600	11,900	11,350	11,450
.Federal Grants and Contracts	15,653	15,815	16,381	21,855	22,482	19,869	14,576
Net Funds Applied	218,454	228,378	255,014	270,139	279,275	294,846	297,038

SCIENCE

The science programs of the Institution consist of the Museum of Natural History/Museum of Man, Astrophysical Observatory, Air and Space Museum, Tropical Research Institute, Environmental Research Center, and the Zoological Park. In addition, supporting units that report to the Assistant Secretary for Science include the National Science Resources Center, the International Environmental Science Program, and the Office of Fellowships and Grants. The latter two offices are contained within the Special Programs chapter to provide consistency with the FY 1987 budget submission.

The Smithsonian, by virtue of its staff, collections, data bases, and research facilities, is a unique international resource in the basic sciences. Complementing industrial, federal, and university research, the Smithsonian's long-term scientific efforts provides critical continuity to the nation's research enterprise in a number of fields. The Institution's systematists, for example, provide the fundamental building blocks by which more advanced research in ecological/evolutionary sciences may occur. In addition to serving the broad research community, Smithsonian research is the foundation for the Institution's public activities. The accuracy and currency of its exhibitions and the quality of its public education program depend directly on the research of the staff. Continued support for the Institution's scientific research is required if other elements of the Smithsonian's overall program are to succeed.

Current and Projected Resources

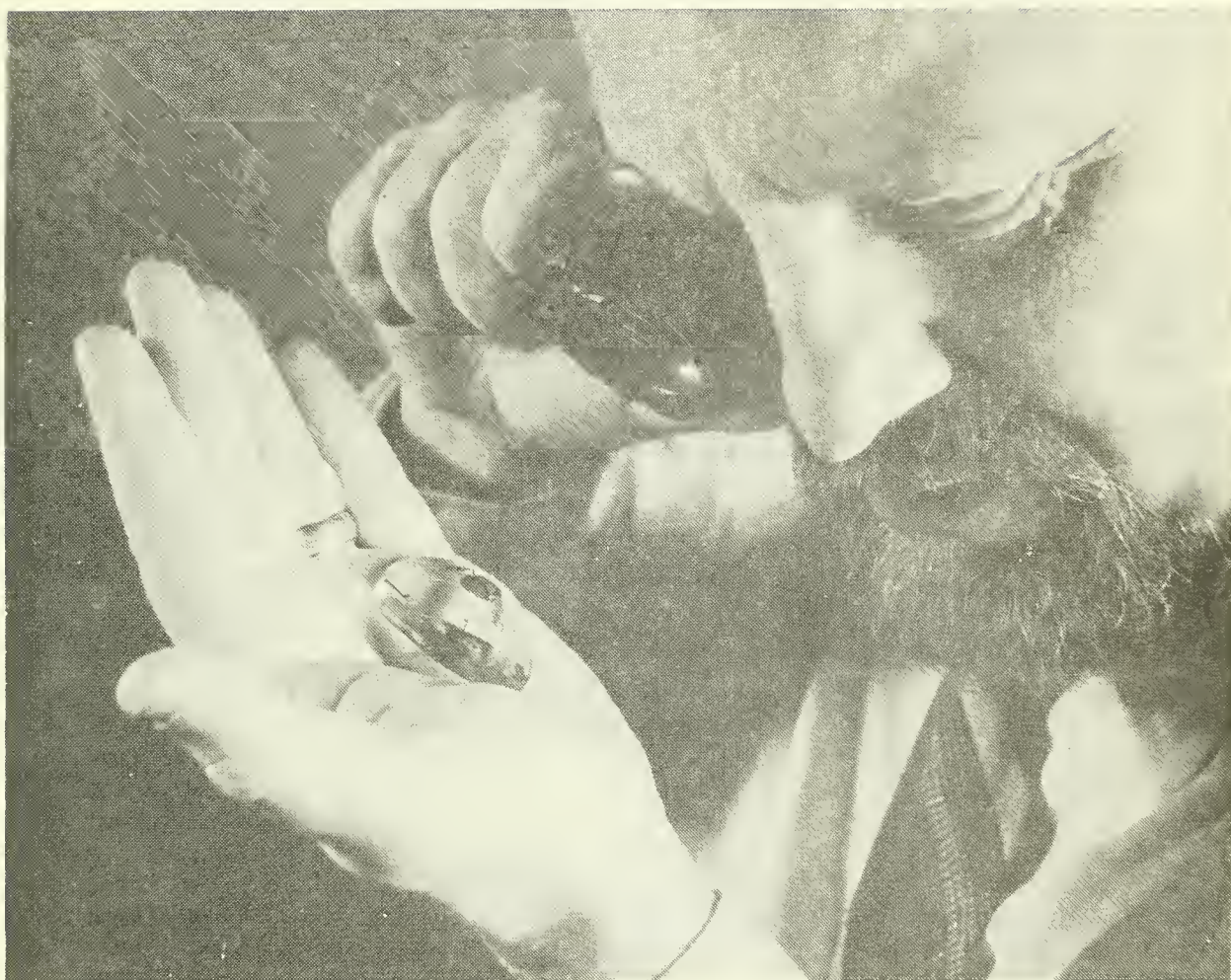
Sources of science support vary markedly from organization to organization. For example, the Marine Station at Link Port, Fort Pierce, Florida, which is administered by the Museum of Natural History, operates solely with restricted trust funds, while the Astrophysical Observatory, because of its unique national and international position as a research leader, has about two-thirds of its dollar and personnel resources associated with federal grants and contracts. The Tropical Research Institute and the Zoological Park, on the other hand, rely extensively on federal appropriations for maintaining programs.

As is the case with other museums and galleries of the Institution, the Museum of Natural History and the Air and Space Museum conduct their basic exhibit, research, collections, and building services activities primarily with federal appropriations, but at the same time enjoy measured support from restricted or unrestricted trust sources, and from federal grant and contract work based upon their ability to obtain these funds.

A breakdown of estimated FY 1985 and projected FY 1991 resources available for science operations (before application of overhead recovery) follows:



Dr. Robert J. Emry, paleobiology curator, installing fossil "Dawn Horse" in "Mammals in the Limelight" exhibition at the National Museum of Natural History. Photo by Vic Krantz.



National Museum of Natural History entomologist Dr. Donald Davis examines a fossilized insect preserved in amber -- one piece of a large and scientifically valuable collection of Dominican Republic amber recently acquired by the Museum. Photo by Vic Krantz.

<u>Source of Funds</u>	<u>FY 1985</u>		<u>Projected FY 1991</u>	
	<u>Full-time Employment</u>	<u>Funds (\$000s)</u>	<u>FTE</u>	<u>Funds (\$000s)</u>
Federal Salaries & Expenses	1,312	\$55,250	1,303	\$59,992
Unrestricted trust	110	10,343	79	8,464
Restricted trust	8	2,957	6	2,663
Federal Grants & Contracts	<u>153</u>	<u>15,392</u>	<u>141</u>	<u>13,676</u>
Total	1,583	\$83,942	1,529	\$84,795

In FY 1985 total resources amounted to approximately \$84,000,000 and 1,583 full-time employees. Total funding consisted of approximately 66 percent federal appropriations, 18 percent federal grants and contracts, and 16 percent nonappropriated unrestricted and restricted trust funds.

Future Year Prospectus

Because of uncertainties surrounding the future year impact of Public Law 99-177 on the Institution's resource levels, projections of additional federal program increases beyond FY 1987 for Science activities are not contained in the Five-Year Prospectus, although some added amounts will be needed to cover uncontrollable expenses such as necessary pay and inflation.

Concurrent with the necessity to apply efforts and find solutions to emerging budget constraints, the challenges posed to the world, as the Institution moves toward the year 2000, are even greater and are manifold. Deterioration of our natural environment with attendant loss of biological diversity, the search for new food and medicinal resources, and the quest to understand what lies beyond our own planet, are but a few examples. These issues serve as the backdrop for setting Smithsonian research goals. The Institution's unique resources must be marshalled not only to engage in fundamental research in the aforementioned fields, but to inform the public through exhibitions and educational programs of the complexities of these issues.

Within the last several years, considerable attention has been paid by policymakers to the accelerating pace of destruction of tropical forest ecosystems. These areas have been described as the "cradle of life," and serve an important role in preserving the global environmental balance and genetic diversity. New food resources, as well as elements for new medicinal products, are found in these fragile regions. Continued destruction of these areas results in more rapid extinction of species, most are yet undescribed, and threatens man's continuing existence. Crucial to resolving these issues is a fundamental understanding of what the tropics are all about in terms of basic description of plants and animals and in associated ecological/evolutionary processes. More than any other institution in the world, the Smithsonian, because of its



Training a Golden Lion Tamarin to take food from a bromelind in preparation for reintroduction to the wild in Brazil.



The Golden Lion Tamarin exhibition at the National Zoological Park documented the ten-year effort to breed the near-extinct species and to train them for reintroduction to the wild. This is a major conservation effort undertaken in cooperation with the Brazilian government. Photos by Jessie Cohen.

collections, staff, and field locations is most suited to undertake research on these problems. Scientists from the National Museum of Natural History (NMNH) will devote increasing attention to biotic surveys of tropical and subtropical regions, engaging in systematic and evolutionary studies. Training of students and scientists in scientific techniques will be a major component of this effort. As the U.S. custodian of substantial tropical forest tracts, the Smithsonian Tropical Research Institute (STRI) in Panama will continue its pioneering studies in tropical biology. The geographical advantages of Panama allows STRI to conduct research/training programs on a year around basis. For the future, selected resources must be obtained to strengthen such fields as soil ecology and biochemical evolution and to enhance capabilities in the field. The National Zoological Park (NZP) plans to strengthen its activities in the tropics by developing its capacity for research and training relating to the captive management of animals, especially aquatic and invertebrate species, and by further investigating strategies for reintroducing zoo-bred animals into the wild.

Smithsonian research also examines processes in the earth's temperate zone, and a major effort is to assess the feasibility of a National Biological Survey focused on temperate North America by the Museum of Natural History and associated institutions. The Museum also hopes to expand its basic research in the Arctic, particularly in the study of archaeology and anthropology. Scientists at the Environmental Research Center in Edgewater, Maryland will continue to develop programs utilizing their unique data base to quantify estuarine environmental processes and to examine landscape ecology and habitat restoration plans.

Understanding our universe is the focus of research activities at the Astrophysical Observatory (SAO). A major goal of SAO is to develop an array of submillimeter telescopes that would represent a bold next step in the exploration of this last major frontier in ground based astronomy. By studying the universe with instruments of high resolving power at sub-millimeter wavelengths, observations can be made of the birth of stars, research can be furthered on cores of quasars and galaxies, and perhaps other planetary systems can be detected. The Air and Space Museum (NASM) will continue to develop its research capabilities in image processing of space borne missions to gain further insights into the mechanisms that form and modify planetary surfaces. In addition, historical research will continue to document man's progress in probing beyond our own planet.

An increasing necessity of modern day research is the replacement of existing research equipment and acquisition of new state of the art equipment. Computers and other instrumentation are as vital to today's scientists as the microscope was to 19th century scientists. While reductions to equipment in all research bureaux have become necessary due to Gramm-Rudman-Hollings in order to maintain critical staff levels, the viability of a major equipment acquisition/replacement program must be retained. Just as important to the Institution's research efforts as equipment and other technical support are adequate physical facilities. Planning will continue for the development of research/support facilities at the Tropical Research Institute and Astrophysical Observatory (i.e, the Whipple Observatory atop Mount Hopkins, Arizona). A request of \$3,500,000 for the Tropical Research Institute is contained in the FY 1987 budget. A



The SUBMILLIMETER TELESCOPE ARRAY, shows artist's conception of the six-element array of radio telescopes proposed for observations in the submillimeter wavelength band of the electromagnetic spectrum. The movable antennas would be mounted on a Y-shaped track.

support base camp at the Whipple Observatory remains a critical priority. Further facilities sums will be sought for the Tropical Research Institute in future years. Planning must also be undertaken for Air and Space Museum storage and exhibit areas at Dulles International Airport. Renovation and new construction must occur at these bureaus to strengthen programs and to meet new responsibilities. To the degree possible non-federal sources will be sought as appropriate. Additional information on facilities requirements is presented in the Facilities chapter.

Another important component of the Institution's responsibility to diffuse knowledge is the exhibition program. At the Zoo, progress will be achieved on the original Master Plan although timing and completion of specific projects will depend on budgetary exigencies. New exhibits will include invertebrates such as insects and spiders, and a comprehensive one which will cover aquatic animals, including fish. At the Natural History Museum it has been recognized that advances in biological, physical, and anthropological sciences are outpacing the rate at which permanent exhibits are being renovated, causing many displays to be badly out of date. Accordingly, the Museum will seek to maintain the scientific integrity of its permanent exhibit halls within available resources. The Air and Space Museum will continue to develop innovative exhibitions although schedules will be stretched out to meet limited resources due to budgetary constraints. The new IMAX film "The Dream is Alive" premiered in early summer and another is under development for the Air and Space Museum's Langley Theater in FY 1986.

Over the planning period, earlier estimates for the successful conduct of Science activities called for the addition of about \$10,000,000 for the period FY 1988-91 in federal program support to the Institution's various museums and research installations. This support is not contained within the current projections, and affects earlier institutional aspirations with regard to equipment funds, automation, collections and non-collections based research, various exhibition, conservation and preservation programs, and related technical support for researchers and curators. Overall levels of Science operating funds are now projected to be about \$85,000,000 in FY 1987, and remain stable over the period 1988-1991. Detailed projections for Science bureaus appear in Appendix I.



A group of high school students conduct biology experiments on the wharf at the Smithsonian Environmental Research Center. Photo by Roger P. Watts.

HISTORY AND ART

Although the Smithsonian, almost since its inception, has collected works of art and artifacts of historical, social, technological, and cultural importance, it was not until 1923 when Charles Lang Freer gave his collection of Oriental and American art to the Smithsonian that an entire building was dedicated to these purposes. Even so, this gallery was built solely for the Freer collection and it was not until 1964 that the Museum of American History (then called the Museum of History and Technology) opened its doors. The 1960s and 1970s were years of marked growth in the history and art collections and in building expansion as well. In 1968, a permanent home was finally found in the Old Patent Office Building for the long standing collections (begun in 1829) of what is now known as the Museum of American Art, and the National Portrait Gallery which was founded in 1962. Beginning in 1970, the Patent Office Building also became home to the Archives of American Art. Together, these three bureaus form a unique concentration of collections, research resources, and scholarly expertise in the history of American art; further development of these resources is planned for the next five years and beyond. The Anacostia Neighborhood Museum, which presents exhibitions, and interpretive and educational programs relating to black history and culture in America, was founded in 1967, and in New York the Smithsonian accepted the former Andrew Carnegie Mansion as a home for the Cooper-Hewitt Museum, the Smithsonian's Museum of Design. The 1970s witnessed the opening of the Museum of American Art's Renwick Gallery, which exhibits American crafts, decorative arts and design, and the Smithsonian's museum of contemporary and modern art, the Hirshhorn Museum and Sculpture Garden. In 1979 the Smithsonian took under its wing the Museum of African Art, which portrays the rich artistic heritage of sub-Saharan Africa through traditional sculpture, musical instruments and textiles. Most recently, the collections of Dr. Arthur M. Sackler were accepted in 1982; in a few months the gallery bearing his name will be ready for occupancy, as will new quarters for the Museum of African Art, in the Smithsonian's Quadrangle.

In addition to these museums, History and Art at the Smithsonian includes the Joseph Henry Papers Project -- a long-term effort to study and publish the papers of Professor Henry, who was a leading 19th century scientist and the first Secretary of the Smithsonian -- and the Office of American Studies. Further discussion of the Office of American Studies, as well as the Collections Acquisition Program, is in the Special Programs chapter to provide consistency with the FY 1987 budget submission.

Current and Projected Resources

As the history and art collections have grown, so have the resources associated with their exhibition, care, and research. Current funding for History and Art activities consists of a mixture of appropriated federal funds, infrequent federal grants and contracts, nonappropriated restricted trust funds, and allocations of nonappropriated unrestricted trust funds. In FY 1985, resources available to History and Art programs amounted to approximately \$37,000,000 and 786 full-time positions. About 75 percent



This illustration, Kedara Ragini, comes from the earliest dated (1591) Ragamala series known. It is a new acquisition of the Freer Gallery of Art.

of the dollar figure and 89 percent of the personnel represent federally appropriated support for basic exhibit, research, education, and administrative activities of the museums and galleries. Most of the balance consists of resources associated with trust operations, with only a small portion originating in federal grant and contract work. A breakdown of FY 1985 and projected FY 1991 levels of resources follows:

<u>Source of Funds</u>	<u>FY 1985</u>		<u>Projected FY 1991</u>	
	<u>Full-Time Employment</u>	<u>Funds (\$000)</u>	<u>FTE</u>	<u>Funds (\$000)</u>
Federal Salaries & Expenses	701	\$27,652	785	\$36,065
Unrestricted trust	42	4,702	34	3,220
Restricted trust	42	4,601	45	5,158
Federal Grants & Contracts	1	114	-	50
Total	786	\$37,069	864	\$44,493

Unrestricted trust fund support is concentrated primarily in the Cooper-Hewitt Museum, Archives of American Art, and Museum of American History. Restricted trust fund support is largely directed to the operations associated with the Freer Gallery of Art, the Cooper-Hewitt Museum, and the Archives of American Art. Most of the of grant and contract work is present in the Cooper-Hewitt Museum.

Generally, the Museum of American History, the Museum of American Art, the Hirshhorn Museum and Sculpture Garden, the Portrait Gallery, and the Arthur M. Sackler Gallery are supported predominantly with federal funds. Their exhibition, research, collections management, and building operations comprise their major expenses. Each of these museums, however, has small amounts of trust funds (up to 10 percent of the total resources) made available by donors for specific purposes, and from proprietary activities (bookstores, museum shops, cafeterias and the like), on their respective premises. These latter funds are used for a variety of program purposes.

Other History and Art bureaus -- the Freer Gallery of Art, Cooper-Hewitt Museum, Museum of African Art, Archives of American Art -- work with more evenly mixed financing. Most of the Freer's principal programs are financed by the income from a restricted endowment fund established by Mr. Freer's Will; federal funds support the costs of protecting and managing the collections and building, and general administration. The Cooper-Hewitt Museum receives an annual allocation of Smithsonian unrestricted trust funds to help support its programs; beginning in 1979, federal funds supported a small portion of the exhibition program as well as the costs of maintaining and protecting the building and collections and a share of administrative costs. In addition, the Cooper-Hewitt Museum raises in excess of a million dollars annually to support its exhibitions and related educational activities. The Museum of African Art raises from \$25,000 to \$50,000 per year from private sources to finance

educational activities and acquisitions. The Archives of American Art's Board of Trustees raises between \$500,000 and \$600,000 each year to support more than one-half of the Archives' program.

In addition to this general pattern of fund availability and use, the History and Art units are eligible for allocations from the special trust fund Collections Acquisition, Scholarly Studies, Education, and Special Exhibition Programs, and from the Special Foreign Currency Program. They also enjoy the presence of interns and pre- and postdoctoral research fellows selected competitively through the Smithsonian's fellowship awards program and funded with nonappropriated unrestricted trust funds.

Future Year Prospectus

Because of uncertainties surrounding the future year impact of Public Law 99-177 on institutional resource levels, projections of additional federal program resources beyond FY 1987 for most History and Art activities are not contained in the Five-Year Prospectus, although some added resources will be sought to cover uncontrollable expenses such as necessary pay and inflation, and amounts required for successfully establishing the activities of the Quadrangle.

Completion of the Quadrangle and establishment of its programs remains the top priority for the next several years. The building will house the Sackler Gallery and the African Art Museum, along with the International Center, and activities of the Associates Programs and Traveling Exhibitions Service. The two museums will begin occupying the new building during 1986; the public opening is scheduled for mid-1987. Federal resources for program development in such areas as collections management, exhibitions, and education, will amount to about \$7 million in FY 1991 for both museums, or approximately \$1,000,000 more than the request for FY 1987. These federal resources are in addition to those required for basic building management, security, and utility costs, and other program support which, by 1991, should total about \$7 million. Programs and operational resource projections for occupants of the Quadrangle are summarized in Table 3.

Contract work to build at the Anacostia Neighborhood Museum's (ANM) Fort Stanton site is scheduled for completion in FY 1986. This wing should enable the ANM to discontinue the lease on the old Carver Theatre and consolidate all of its activities -- exhibitions, education, and research staff -- in one location. A comprehensive survey of collections begun in FY 1985, with the National Museum of American History, to identify artifacts and material with significant Black American relevance will also be completed in FY 1986. Study of these materials will lead to new insights and will also result in a greater understanding of the history and culture of Black America. Through such initiatives, the Anacostia Museum will be seeking a stronger role in its educational activities and in planning for further development for the 1990s.

The emphasis on collections management, research, and automation activities will continue as History and Art priorities for the next several years. The collections inventory recently completed has helped to focus attention on the growing problems of collections storage,



Horse, by Deborah Butterfield, done in steel, wire and metal armature was acquired by the Hirshhorn Museum and Sculpture Garden in 1985.

conservation, and preservation. Storage conditions need to be improved for the safety and preservation of the collections objects and to provide greater accessibility by scholars and others. History and Art operations which will need improved storage and related areas in future years are the Freer Gallery of Art, Museum of American Art, the Portrait Gallery, Archives of American Art, Cooper-Hewitt Museum, and the Hirshhorn.

In 1984, the Congress authorized the transfer of the Old Post Office Building to the Smithsonian. Some concept and space planning for the renovation of the building has been initiated. Detailed planning and funding requests are being postponed until more information is available regarding the impact of Public Law 99-177. Actual work will not be started until the current tenant, the International Trade Commission, has new quarters. Present plans call for this building to be used as an extension to the Patent Office Building which houses American Art, the Portrait Gallery, and the Archives of American Art. Together, these three organizations -- their collections, historical documents and staff resources -- form the nucleus of what has become a major center for the study of American art and material culture. Creation of an auditorium, classrooms, study rooms, galleries, and the like will enable these three bureaus to accommodate public demand for programs, and continued development of resources, including research programs, exhibitions, lectures, publications, and collections management.

Improving the care of collections also is contemplated by the Cooper-Hewitt Museum, but added resources are needed to provide professional care to the wall covering collection, which currently has no curator, as well as to increase professional curatorial assistance in the prints and drawings, decorative arts, and textiles departments. Space improvements are also being planned. The Carnegie Mansion renovation in the 1970s resulted in climate controlled areas and conservation facilities for the prints, drawings, and textiles collections. Significant improvements in space for the large and important decorative arts collections (furniture, glass, etc.) and the wall covering collection, now housed in largely inaccessible areas in the mansion and the adjacent deteriorating Miller House, are needed. Creation of collection storage areas, and exhibition and education facilities are basic to future year operations of the Cooper-Hewitt. A recent construction estimate amounts to around \$23,000,000 and a fund raising effort is beginning with a goal of about \$11,500,000 to be raised, representing about one-half the requirement. Appropriations will be sought as fund raising efforts are assured. This facilities project will provide for the safekeeping, care and exhibition of these collections for generations to come.

These various construction and renovation efforts represent by far the largest need for direct new funding on the part of History and Art bureaus of the Smithsonian. Additional information is contained in the Facilities chapter and the Beyond 1991 chapter of this document.

The Museum of American History has not been immune to the pressures for more space. In 1985, the Museum began to plan the move of some collections and objects from the Mall to the Institution's Museum Support Center in Suitland, Maryland. During FY 1986, the process will continue with refining records, photographing, cleaning, packing, and storing



One of the Cooper-Hewitt's recent acquisitions is this Mural, designed by Lydia Bush-Brown (circa 1920) done in resist dye techniques on plain-weave silk.

objects in anticipation of eventual transfer. Relocation of collections to the Support Center will free valuable museum space for exhibitions and provide safer and more secure environmental conditions for individual objects.

The Museum of American History's first major reinstallation of a permanent exhibition, "After the Revolution: Everyday Life in America, 1780-1800," opened in October, 1985 and constitutes a major new interpretation of what makes our country what it is today. In FY 1986 the Museum may open its second major permanent exhibition entitled, "Engines of Change: The Industrial Revolution in America, 1790-1860." This project, which will depend on adequate private funding, will show how the Industrial Revolution in America brought tools for transforming energy, new ways of organizing work, and a new entrepreneurial spirit to the United States. As outlined in previous years, the gradual reinstallation of new permanent exhibitions, given necessary financial support, will take place at the pace of at least one a year. Fundraising has begun for a proposed major exhibition on "The Information Revolution," which will address the history of and recent changes in the processing and communication of information and its profound effects on all parts of society. Major financing by the private sector is being sought for this exhibition.

The Museum of American History continues to plan for improvements to its research capabilities through the creation of a research center for the study of American History. This program would combine existing research centers at the Museum, formalize relationships with several universities, promote new affiliations, and provide encouragement and opportunity for intramural research. The Museum also continues a long range space requirements plan for the next twenty years.

The bicentennial of the United States Constitution will be the second of the major celebrations marking the birth of our nation (the bicentennial of the American Revolution in 1976 being the first). This historic period (the draft of the Constitution was approved in September 1787 but not fully ratified until July 1788) will be marked with exhibitions, lectures, film, and symposia which will reacquaint today's generation with the historical context of our constitutional roots and their development over time. In particular, the Museum of American History will open, in 1987, an exhibition and related programs on "The Japanese American Experience in World War II." This exhibit will deal with the complex problems facing national and state decision makers during World War II, when they had to balance constitutional guarantees of civil rights against the perceived requirements for military security. The exhibition will particularly focus on issues of civil rights for Japanese Americans and on their patriotic contributions during World War II. "The Portrait in America from 1700 to 1776" will, through portraits of the period, serve as a valuable source of information about American culture during the period leading up to the drafting of the Constitution. This exhibition is scheduled to open at the Portrait Gallery in October 1987. In the spring of 1989, the Portrait Gallery plans to offer "Portraits of Distinguished American Jurists," an exhibition which will evoke the rich personalities and abilities that came into play in determining the evolution of this country's legal processes and institutions.

The conduct of many activities throughout History and Art, primarily in research, collections management, conservation, exhibitions and education cannot be achieved within current projected federal funding levels. Federal resources are expected to amount to about \$35,000,000 in FY 1987, and increase by about another \$1,000,000 during FY 1988-91. The increases shown are associated with appropriation needs for the programs being housed in the Quadrangle. Restricted and unrestricted expenses are expected to remain about \$8,000,000 to \$9,000,000, and grant and contract activity is expected to continue to be only a small portion of overall resources. Detailed projections for History and Art are contained in Appendix I.

PUBLIC SERVICE

The Public Service programs are the central focus for the Institution's "diffusion of knowledge" activities. These are: Smithsonian magazine, contained within the Associates Program chapter because of the general support the magazine provides to many programs of the Institution and because it is viewed as a major benefit to Associates; Smithsonian Institution Press, including the university press publications, popular books marketed through direct mail, and the Smithsonian Recordings Program; Office of Elementary and Secondary Education, contained within the Special Programs chapter to provide consistency with the FY 1987 budget presentation; Visitor Information and Associate Reception Center; the Office of Telecommunications; the Office of Public Affairs; the Office of Smithsonian Symposia and Seminars, and the Office of Folklife Programs. The latter two offices also are incorporated within the Special Programs chapter to be consistent with the budget submission. The Office of Smithsonian Symposia and Seminars and the Office of Folklife Programs carry out research activities in conjunction with their public outreach and diffusion activities. The vigorous growth of Smithsonian outreach trust funded programs can be attributed largely to the success of the Magazine. Through the application of trust funds generated by the Magazine and other revenue producing activities, a variety of valuable research activities, conferences, publications, and other projects have been made available in recent years to the public. While these projects enrich the kinds of services provided, the Institution has as a result been able to reduce the requirements for federal appropriations.

Current and Projected Resources

Resources in FY 1985 devoted to Public Service activities amounted to about \$18,000,000 and 124 full-time employees. Total funding in FY 1985 consisted of approximately 13 percent federal appropriations and 87 percent nonappropriated unrestricted trust funds. The largest amount of support for Public Service programs comes from the Institution's trust operations, and unrestricted trust fund support is, for the most part, concentrated in the expenses of the Smithsonian Press which derives these resources from the sale of trust funded books and records, royalties, and special publishing services. These funds support about one-half of the Press staff and also provide for the necessary services required to develop, market, warehouse, and distribute records and scholarly and general interest books, which are published in connection with the Institution's research, collections, exhibitions, and other programs. Federal appropriations largely support the publication of the basic technical and scientific series distributed by the Government Printing Office, other publications and conferences, and a portion of the staff and operations of the Institution's centralized film and television operations. The Visitor Information and Associate Reception Center and the Office of Telecommunications are operated primarily with trust funds. Restricted purpose funds are occasionally obtained for support of special activities sponsored by various units; for example, funds to support major film projects of the Office of Telecommunications.

A breakdown of FY 1985 and projected FY 1991 levels of resources follows:

<u>Source of Funds</u>	<u>FY 1985</u>		<u>Projected FY 1991</u>	
	<u>Full Time Employment</u>	<u>Funds (\$000s)</u>	<u>FTE</u>	<u>(\$000s)</u>
Federal Salaries & Expenses	54	\$ 2,294	52	\$ 2,373
Unrestricted trust	70	15,768	78	19,567
Restricted trust	-	138	-	-
Federal Grants & Contracts	-	-	-	-
Total	124	\$18,200	130	\$21,940

Future Year Prospectus

Because of uncertainties surrounding the future year impact of Public Law 99-177 on the Institution's resource levels, projections of additional federal program increases beyond FY 1987 for Public Service activities are not contained in the Five-Year Prospectus, although some added amounts will be sought to cover uncontrollable expenses such as necessary pay and inflation. Public Service activities play a key role in placing the Smithsonian in contact annually with an estimated public of over 85 million individuals through publications, recordings, television, and films. Some units (Office of Smithsonian Symposia and Seminars, Office of Folklife Programs) are involved in non-collection-based increase and diffusion endeavors while others (Visitor Information and Associate Reception Center, Office of Public Affairs, Office of Telecommunications) furnish support services to the entire Institution. Smithsonian Institution Press, Smithsonian magazine, Office of Smithsonian Symposia and Seminars, Office of Telecommunications, Office of Folklife Programs, Office of Elementary and Secondary Education, and the Office of Public Affairs produce a broad range of publications; the Office of Elementary and Secondary Education provides the Institution's major links with school systems locally and across the nation. Public Service programs and services constitute the Institution's major delivery systems for research and educational materials serving the Smithsonian's domestic and international network of individuals and organizations.

The absence of added federal support for program growth over the planning period constrains anticipated expansion of some Public Service activities. The Smithsonian Press, for example, had plans for establishing a section which would have streamlined the process of publishing many of the smaller, less complex bureau publications, such as booklets, flyers, floor plans, educational materials, posters, exhibition check-lists, newsletters, invitations, etc. These account for about 120 to 150 jobs per year out of the Press' total output of over 350 jobs. Increased funding would have freed present editorial and production staff to allow for the publication of an increasing number of yearly University Press



These thirty-foot effigies of Ravana, an Indian demon, were burned on The Mall in an evening highlight at the nineteenth annual Festival of American Folklife. Photo by Jeff Tinsley.



Dance parties held each evening at the end of the Festival of American Folklife afforded downtown workers an opportunity to come enjoy music and participate in some of the festivities before heading home. Photo by Jeff Tinsley.

Division books on subjects related to Smithsonian interests and activities.

In the Office of Telecommunications, the Institution's ability to extend to people around the nation the benefits of its research and exploration, through distinctive films, radio and television programs will be slowed. Electronic media are a primary source of information for Americans, and Smithsonian media programs are critical to fulfilling the "diffusion" portion of the Institution's mandate. Indeed, along with many of the other activities, television a significant means by which the Smithsonian reaches people throughout the United States.

Over the planning period, only minor growth in resources is projected. Some additional trust funding is forecast for the Visitor Information and Associates' Reception Center to provide an increase in services to the general public and to respond to an expected growth in telephone and written inquiries. Over the period, work will continue towards completion of an orientation facility for visitor reception and information services in the Castle Building, initial funding of \$1,000,000 having been received from the Pew Foundation. Overall trust funded activities are projected to increase from about \$16,000,000 in FY 1985 to approximately \$20,000,000 in FY 1991, but much of this is attributable to increases in expenses associated with revenue producing activities of the SI Press. Also, over the planning period ways will be considered to continue to enhance outreach programs, such as the Smithsonian News Service produced monthly by the Office of Public Affairs, and the radio, film, and video production activities of the Office of Telecommunications (including Smithsonian Galaxy, Radio Smithsonian, and Here at the Smithsonian), the activities of the Committee for a Wider Audience, and the various worthwhile proposals that come forth from the bureaus. Detailed projections for Public Service bureaus are contained in Appendix I.

MUSEUM PROGRAMS

Museum Programs consists of the Office of Museum Programs, Conservation Analytical Laboratory, Office of the Registrar, Office of Exhibits Central, Smithsonian Institution Libraries, Smithsonian Archives, the Traveling Exhibition Service, and the National Museum Act. Resources associated with the Office of Horticulture and South Group Buildings Management appear in the chapter on Administration, Financial and Other Support Services to be consistent with the budget presentation. Collectively, these units provide a number of specialized services and programs to museums and research bureaus of the Institution and to the museum community at large. Most of these services relate to fundamental aspects of museum development and operations, such as collections management, conservation, production of exhibitions, training for museum professionals, and bibliographical and archival support for research. Other activities -- traveling exhibitions, grant awards and technical assistance programs -- make it possible for the Institution to share many of its resources with museums and similar organizations throughout the United States and abroad. Over the planning period these units intend to maintain their capabilities to assist the Institution and other museums to meet these critical needs.

Current and Projected Resources

The overwhelming proportion of support for the bureaus and offices of Museum Programs comes from federal appropriations. Of approximately \$13,500,000 available for activities in 1985, \$9,800,000 or 72 percent were provided by federal support. A breakdown of FY 1985 and projected FY 1991 resource levels follows:

<u>Source of Funds</u>	<u>FY 1985</u>		<u>Projected FY 1991</u>	
	<u>Full-time Employment</u>	<u>Funds (\$000s)</u>	<u>FTE</u>	<u>Funds (\$000s)</u>
Federal Salaries & Expenses	207	\$ 9,763	242	\$11,664
Unrestricted trust	40	2,656	51	3,036
Restricted trust	4	1,063	-	1,000
Federal Grants & Contracts	-	15	-	-
	—	—	—	—
Total	251	\$13,497	293	\$15,700

Only the Traveling Exhibition Service has the majority of its support provided from unrestricted (\$1,974,000) and restricted trust funds (\$651,000), which constitute 88% of its resources in FY 1985. Limited trust fund support is available to the Smithsonian Institution Libraries and Archives for support of staff and related costs. In FY 1982, the Kellogg Foundation awarded the Office of Museum Programs (working in

conjunction with the Resident Associate Program) a three year grant to foster the educational influence of museums. A multiyear extension of this grant is under consideration. Apart from this, the Office of Museum Programs has revolving trust fund budgets to receive revenues for handling and shipping costs associated with audiovisual programs on conservation information. The Office of Horticulture, South Group Buildings Management and the Office of Exhibits Central have small trust fund accounts to provide support for trust fund activities.

Future Year Prospectus

Because of uncertainties surrounding the future year impact of Public Law 99-177 on the Institution's resource levels, projections of additional federal program support beyond FY 1987 for most Museum Program activities are not contained in the Five-Year Prospectus, although some added funds will be sought to cover uncontrollable expenses, such as necessary pay and inflation, and amounts required for successfully strengthening Quadrangle exhibit support and other activities of the Traveling Exhibition Service. Resources beyond FY 1987 for this latter activity amount only to an estimated additional \$200,000 over the period.

Many areas of research at the Smithsonian have been traditionally driven by the collections. Currently, various bureaus are engaged to differing degrees in research on their diverse collections; Appendix II contains some descriptions of these activities. In future years, use of the collections for research at the Smithsonian will increase. The recent inventory has brought into focus for Smithsonian and other researchers the variety, range, and depth of the collections, and the information potential they represent. The establishment of research and conservation laboratories and curatorial areas at the Museum Support Center, the provision of additional internships and fellowships, the upgrading and replacement of research equipment, and the growing importance of the Institution's international functions combine to provide a strengthened base from which collections oriented research can receive greater emphasis in future years. In addition, archaeometric studies will become increasingly important. In studying man-made objects, form and decoration have classically been the differentiators establishing provenance. With the advent of archaeometry, the chemical composition, internal structure and other physical characteristics of objects can be quantified and statistically analyzed by computer techniques. Such studies need large numbers of objects of known provenance to be sampled, accurately measured and the data stored in an accessible manner. The Smithsonian Archaeometric Research Collections and Records (SARCAR) of the Conservation Analytical Laboratory have been set up to focus research in this area and to maintain a bank of data and samples.

All of the Conservation Analytical Laboratory's (CAL) functions -- conservation treatment, conservation science and archaeometry -- moved to the Museum Support Center in the fall of 1983 and occupy new laboratory and work areas totaling approximately 40,000 square feet. This space also accommodates present and future program activities of the Institution in conservation training. Phased growth of staff and resources to make proper use of these new facilities are needed, but are not contained within the current projections over the planning period. Initial

activities for the training program include a series of seminars for advanced specialists, refresher courses for practicing conservators, practical internships for students in academic conservation training programs and advanced internships for graduates of such programs. A new entry level training program for furniture conservators has been planned. Based upon experience gained through these activities and on careful evaluation of the needs of the profession, future directions for the program will be identified and incorporated. CAL will consult closely with other training programs to assure that the Institution's role in national conservation training endeavors is appropriate. The internal staff structure of the Laboratory has been reorganized to accommodate its larger size and its several specialized functions. Working from these foundations, the Laboratory will be in a substantially stronger position to offer support to the Institution's museums and to museums generally through its research programs in conservation technology, its information program for conservation professionals, its training activities, its support activities in conservation treatment and analysis, conservation science and archaeometry. A major thrust will be to coordinate and integrate these staff and facility resources effectively to broaden the range of expertise available for the training program, to provide a broader technological base for new work in conservation treatment, and to make full use of modern instruments and analytical methods to provide answers to important questions in conservation, archaeology and art history.

Work in archaeometry thus far has centered on chemical, microscopic, and petrographic analysis of objects and materials to determine questions of provenance and historic technology. In addition, neutron-induced autoradiography of paintings has been used in combination with other examination methods to give critical information on technique and attribution. These methodologies will continue, and others such as isotope analysis will be extended. Effective use of physical and chemical data derived from objects to determine their place in time or their origin depends upon comparison with an adequate data base. At present, these data bases and samples from objects of interest are scattered throughout the country and have limited uniformity of quality control. The Archaeometry Department of the Laboratory operates the Smithsonian Archaeometric Research Collections and Records (SARCAR) in order to bring these data together at a single point and to apply uniform criteria to them. SARCAR is essential to research on collections. It is a source of reference materials (petrographic thin sections, metallographic sections, etc.) and data (neutron activation, X-ray diffraction, electron microscope analyses, etc.). The Smithsonian is committed to the establishment of a research center at CAL for technical and analytical studies, involving staff and visiting scholars. The archaeometry program enhances the Smithsonian's ability to use and preserve data in a meaningful and effective manner. The Laboratory plans to improve its methods of gathering and disseminating other data to serve practicing conservators and the general public. The branch library at the Support Center will work in close concert with the Laboratory to provide bibliographic resources related to conservation and archaeometry. The Laboratory will work closely with the Office of the Registrar in the development of policies and procedures for collection materials passing through it.

Completion of the initial inventory of Smithsonian collections in June 1983 was a landmark in the development of improved collections management policies for the Institution. The inventory produced vital base-line data on current holdings which will enhance and clarify existing acquisition and catalogue records and serve as a base for computerized record keeping systems in the future. The inventory, however, is only one aspect of collections management which also involves accountability procedures contained in the collections policies and information management techniques of the museums. These provide knowledge about and access to all of our objects and specimens. Some modest additional resources are needed to aid the Registrar in monitoring the compliance of individual museums with institutional collections management policies, but these are not contained in the current projections. This unit will continue to develop, oversee and coordinate the policies and practices related to the management of collections.

The Smithsonian Institution Libraries (SIL) reached its goal of implementing an automated library system in FY 1985, a project which had been planned since 1980. The system will support wider and more effective use of book, manuscript, and graphic resources and will provide on-line access to additional bibliographic information held in library network databases. The Smithsonian Institution Bibliographic Information System (SIBIS) passed to the administration of the Institution's computer center (OIRM) in FY 1984 and will also be used for museum object inventories and other local information files. With this system in place, the SIL will, for the next five years, concentrate its efforts on developing its services and on providing basic support for Smithsonian scholars, fellows and affiliated researchers. During the planning period, the research collections should be strengthened in selective ways to fill demands of the scientists, curators and their supporting staffs, as well as fellows, interns and research associates. Further, significant demands are made by the administrative and support activities of the Institution, and by outside scholars. The Institution's library system supports approximately 1,000 intensive and regular users. While the SIL will continue to borrow from other libraries to fill part of the needs of its customers, basic collections (books, journals, on-line databases) adequate for its clientele need to increase, but added resources are not contained in the projections. In a similar fashion, resources needed over the next five years to partially inventory and catalogue a backlog of titles do not appear in the projections.

A large portion of the SIL collections need some preservation attention and a significant percentage (about 25%) is beyond restoration and must be miniaturized (film, optical disc, etc.) or replaced. In addition, many collections need to be deacidified and placed in an acceptable atmosphere to prevent further paper deterioration. Resource increases to allow SIL to address the problems of preservation and deterioration are not contained in the current projections.

There is a requirement for more and better space for storage and other activities of the central library facility. The Institution continues to consider various alternatives to solving the space need.

Smithsonian Archives (SIA) will continue its project to identify and describe photographic collections in the Institution, and to issue a guide based on the results of this survey. SIA will thereafter maintain and update an ongoing record of photographic resources. Further work on developing description and cataloguing down to the individual image level within collections is expected to follow the initial survey project. The Archives will expand its oral history program and will embark on a phased program of improving conservation work. A survey of scientific illustrations will be undertaken and a guide produced. SIA will maintain and update an ongoing record of scientific illustrations as part of the program in Natural History. Like the Libraries, the Archives also has space problems which need to be solved.

The Office of Museum Programs (OMP) over the planning period needs additional support for its Native American Training and audiovisual programs, but resources are not contained in the projections. OMP will work with other units in strengthening Native American Programs in general. The number of qualified Native Americans available to serve the more than 100 tribal museums and cultural centers remains discouragingly small. Although these museums hold remarkable and important collections of historical and ethnological materials, they lack resources to provide the required training themselves, or to obtain much needed technical assistance for their museum operations. The informational audiovisual programs dealing with preventive maintenance and care of collections in museums continue to be in great demand. OMP will increase the number of subjects covered by these slide sets and videotapes.

Annually, the Office of Exhibits Central (OEC) serves approximately forty Smithsonian units and is involved in some two hundred and fifty projects. OEC is a major source of exhibit support for the Traveling Exhibition Service for its national and international exhibition programs. To maintain productive capacity in the coming years, the Office of Exhibits Central needs to add some exhibit professionals to its staff, but these increases are not incorporated into the projections. These positions would help to fill Institution-wide demand for design and editing services, model making, graphics production, and exhibit fabrication.

The Traveling Exhibition Service (SITES) is scheduled to move into the Quadrangle where it will continue to cooperate with Smithsonian bureaus including the International Center, in the initiation, production and interpretation of exhibitions. SITES international programs have enjoyed great success. "Elba to Damascus," with antiquities from Syria, began its two year U.S. tour in October 1985, and "Good as Gold: Alternative Materials in American Jewelry" is currently touring South America. "The Precious Legacy: Judaic Treasures from the Czechoslovak State Collections," which opened at the Smithsonian in 1983 has completed its U.S. tour. In negotiation for U.S. tours from abroad are "Renaissance Master Bronzes from the Kunsthistorisches Museum," Vienna (which will open at the National Gallery of Art in 1986); "Moroccan Jewelry;" and "Itinerants: Russian Realist Artists, 1840-1910." SITES is working with the Directorate of International Activities to organize the inaugural exhibition for the International Center, "Generation: Birth Rituals and the Roots of Becoming," scheduled to open in mid 1987. Another exhibition in the planning stages for the Center is "Tropical

Rainforests". Other exhibitions are in the planning stages in collaboration with nearly all Smithsonian museums. These Smithsonian-originated exhibitions will reflect the broad range of the Institution's resources available to major museums, as well as to small libraries and cultural centers. A poster panel exhibition currently in production will present the life of Martin Luther King, Jr. and his role in the civil rights movement.

The National Museum Act (NMA) makes grants to museums, academic institutions, and museum associations for the purpose of enhancing professionalism in the museum community, advancing knowledge about critical museum-related problems, and disseminating information through seminars and publications. Through its various programs over the years, the Act has emphasized conservation and the improvement of preservation practices. Although conservation awareness has increased recently in the museum community and among federal funding agencies, the Act remains unique in its support of individuals who are pursuing professional training in conservation and in its funding of scientific research on both the deterioration mechanisms of objects and materials used by conservators. Staff maintain continuing liaison with professional associations in order to monitor changing museum issues and with federal funding agencies to avoid occurrences of overlap. Reauthorization is being sought through FY 1989.

The conduct of many activities throughout Museum Programs cannot be achieved within the current projected federal funding levels for the period; there will be a number of effects on planned operational goals of all units. In summary, the Libraries (SIL) had developed plans to complete retrospective conversion of all early catalogue records to the automated SIBIS system, to gain full bibliographic control of old uncatalogued materials and to improve systems for caring for special collections, including rare books. These goals will now take many more years to attain. Under these conditions, the ability of the SIL to support research programs is impaired; limited resources for acquisition of new books and journals will also have a negative effect on research programs. Archival programs, including records management programs, for all Smithsonian offices will likewise have to be extended into the indefinite future. Many Institutional records will be unavailable to those needing them for research. For both the SIL and the Archives, the inability to provide environmentally suitable space over the planning period for archival and book storage, as well as space for processing materials, will have a detrimental effect on the collections. The Conservation Analytical Laboratory will be unable to achieve its planned growth of staff for a balanced conservation treatment, training, research and archaeometry program, a program of importance not only to the Institution, but to the entire museum profession as well. The lack of needed additional resources for scientific analytical equipment will reduce the number and range of important conservation problems which can be addressed. In response to a steadily growing demand, the Office of Museum Programs has projected expanded training and informational services for the Native American community but because of level funding projections, these and similar services will have to be held to the limited programs that are now in place. The ability of SITES to produce and initiate the distribution of a larger number of inexpensive shows will be

restricted and higher rental costs will have to be passed on to the users. The amount of supplementary educational material SITES will be able to provide for exhibits will be seriously limited.

The effect of these constraints, along with others for exhibit and registrarial activities, amount to approximately \$4,000,000 in increased resources which do not appear in the projections for the years beyond FY 1987. Detailed projections for Museum Program units are contained in Appendix 1.

DIRECTORATE OF INTERNATIONAL ACTIVITIES

The Directorate of International Activities was established in October, 1984 because of the growing importance of the Institution's international role in museum and collection management operations, research, exhibition techniques, and cultural and natural conservation. The function of the Directorate is to design and conduct a program to coordinate and balance all of the Institution's international activities, and to manage the International Center -- to be located in the Quadrangle Building -- the Office of Service and Protocol, and the Office of Publications Exchange. The Directorate also manages the Institution's Foreign Currency Program and is assigned overall responsibility for the Institution's commemoration of the 1992 Columbus Quincentenary. One of the Directorate's first initiatives was to identify the scope of the Smithsonian's current international activities. This has been published in the "Summary Profile of International Activities," which contains over eight hundred projects conducted in the past five years in one hundred and twenty countries. The Directorate acts as liaison with federal agencies and international organizations and institutions whose activities affecting scholars of other nations are congruent with those of the Smithsonian. The Institution's international activities will be publicly reflected in programs and operations of the Quadrangle's International Center, now scheduled to open in the mid-1987.

Current and Projected Resources

Most of the support for the Directorate in 1985 came from nonappropriated trust funds. Of the \$642,000 in available FY 1985 funds, approximately \$370,000 or 58 percent are nonappropriated. An estimated breakdown of FY 1985 and projected FY 1991 resource levels follows.

<u>Source of Funds</u>	<u>FY 1985</u>		<u>Projected FY 1991</u>	
	<u>Full-time Employment</u>	<u>Funds (\$000S)</u>	<u>FTE</u>	<u>Funds (\$000s)</u>
Federal Salaries & Expenses	7	\$272	13	\$1,298
Unrestricted trust	9	370	11	1,065
Restricted trust	-	-	-	300
Federal Grants & Contracts	-	-	-	-
	—	—	—	—
Total	16	\$642	24	\$2,663

More than three-quarters of the Directorate's federal funding in FY 1985 is associated with the Office of Service and Protocol and the Office of Publications Exchange. Within available resources, the Office of Service and Protocol will continue to provide basic services necessary for the coordination of international aspects of Smithsonian research and museum programs. The Office of Publications Exchange will continue to

foster scholarly interchange by enabling learned societies and universities in the United States to exchange their publications with those of their foreign counterparts. The program staff is developing plans for the opening of the International Center in the Quadrangle. The FY 1987 inaugural exhibition is titled "Generations: Birth Rituals and the Roots of Becoming," and is an ambitious and unprecedented presentation of the art and rituals associated with birth from ancient times to the present.

Future Year Prospectus

Because of uncertainties surrounding the future year impact of Public Law 99-177 on institutional funding levels, projections of additional federal program support beyond FY 1987 for most of the activities of the Directorate are not contained in the Five-Year Prospectus, although some added resources will be sought to cover uncontrollable expenses such as necessary pay and inflation, and amounts required for successfully establishing the activities of the Quadrangle's International Center. With regard to the International Center, only modest growth of about \$80,000 is projected over FY 1987-91 for research and cultural studies, and increased public understanding of the Caribbean and Latin America. The second exhibition in the International Center Gallery will combine these new initiatives. Entitled "Tropical Forests: Disappearing Treasure," the exhibition aims to focus public attention on the crucial problem of the tropical forest - its ecology, its diversity, the threat to its existence, and the efforts being made to preserve it and to utilize it in a more environmentally and economically intelligent way. However, constrained federal support may well adversely affect the planned scope of this exhibition and its related programs. Consistent with the exhibition theme and purpose, International Center staff will also develop tropical biology and conservation workshops. It is intended that selected students and professionals from Latin America will participate in the workshops and will gain knowledge to apply to conservation concerns in their own countries. In addition, over the planning period an International Center visiting scholars program will be established to foster cross-disciplinary communications on subjects related to the goals of the International Center.

The FY 1987 budget request contains \$245,000 for planning the programs associated with the 1992 commemoration of Columbus' arrival in the Americas. An overall Institution theme has been adopted for the 1992 Columbus commemoration, "Quincentenary: The Americas 1492-1992--Exploration of the Past - Encounter with the Present - Discovery of the Future." In FY 1987 program planning will be initiated in nine bureaus and offices in areas ranging from exhibition conceptualization to publications. Federal resources were projected as growing to about \$2,000,000 by FY 1991 for the successful conduct and completion of these and various other activities, but are not contained in the most recent projections. This long term program is directed at stimulating public and scholarly interest in the historical background of Columbus' voyage and its impact on the past and present cultures of North, Middle and South America.

SPECIAL PROGRAMS

Special Programs include the Offices of American and Folklife Studies, the International Environmental Science Program, Academic and Educational Programs (including the Office of Symposia and Seminars, the Office of Elementary and Secondary Education, and the Office of Fellowships and Grants); the Collections Management/Inventory Program; and the trust funded Collections Acquisition, Scholarly Studies, Education and Special Exhibition Programs. This chapter also contains the equipping, move, and operating requirements for the Museum Support Center. The resources associated with the International Environmental Science Program, the Fellowship Programs of the Institution, the Collections Management/Inventory Program, and the trust funded Collections Acquisition, Scholarly Studies, Education, and Special Exhibition funds are generally available to all organizations of the Institution if they meet standards and selection procedures.

Current and Projected Resources

<u>Source of Funds</u>	<u>FY 1985</u>		<u>Projected FY 1991</u>	
	<u>Full-time Employment</u>	<u>Funds (\$000s)</u>	<u>FTE</u>	<u>Funds (\$000s)</u>
Federal Salaries & Expenses	125	\$ 8,466	118	\$ 5,434
Unrestricted trust	21	3,021	23	14,391
Restricted trust	-	402	-	490
Federal Grants & Contracts	-	43	-	850
<hr/>				
Total	146	\$11,932	141	\$21,165

Funding patterns vary, ranging from programs which are funded entirely from federal appropriations to those funded solely through trust operations of the Institution. American and Folklife Studies operate with both federal appropriations and trust funds and also seek grants and contracts for special projects. Federal funds support the Folklife administrative staff as well as office expenses; travel expenses; research and publication efforts; two-thirds of the cost associated with the annual folklife festival; and special projects, such as the recent Museum of American History exhibition on Southeastern Potteries. Trust funds support the salaries of the remaining permanent staff members, one-third the cost of the annual festival, and some travel and office expenses. Grants and contracts are sought to augment programs at the annual festival (e.g. the Louisiana and India programs at the 1985 festival). Trust funds cover the direct costs of the Visiting Research Fellowships, the Regent's Fellowships, the Cooperative Education Program, and the James E. Webb Fellowship program. Administrative costs for the Office of Fellowships and Grants, the office which manages these programs, are essentially federally funded.



At the National Museum of American Art, schoolchildren view "The Truant," a work by Randolph Rogers. This photo was one of a series used for an educational calendar produced by the Office of Elementary and Secondary Education. Photo by Roger P. Watts.

The Office of Folklife Programs engages in the documentation, analysis, presentation and conservation of living folklife traditions. In addition to the scholarly study of folklife, the Office endeavors through its public programs to give national recognition to, and to educate wider audiences about, a variety of traditional cultural forms. The Office of Elementary and Secondary Education conducts its basic activities through federal appropriations; trust funds or grants support special projects, meetings, or conferences. In addition to federal appropriations, the Office of Symposia and Seminars receives an annual allotment from trust funds for administration and direction of its activities, which include seeking outside support for the academic and intellectual meetings and publications which it designs and produces.

The International Environmental Research Program was established in the early 1970s to promote interbureau research on environmental matters by funding special, long-term projects using the principal scientific strengths of such organizations as the Tropical Research Institute, Smithsonian Environmental Research Center, Natural History Museum, and the Zoo.

Collections Management/Inventory Programs. In FY 1979, Congress appropriated special funds in the amount of \$500,000 to help the Institution begin conducting a major inventory of its various collections, including those being housed in the Museum Support Center. The initial inventory was completed in June 1983 with some one hundred million items documented in the collections. There is a real need to continue the program in future years. Since FY 1984 efforts have been concentrated on reconciling the inventory results with catalogue and other records, establishing routine procedures for entering data on incoming objects, refining the results of collections that were inventoried by batch rather than individual counts, and continuing to refine and improve the data processing systems for accessing information on the collections.

Collections Acquisition, Scholarly Studies, Education, and Special Exhibition Programs. In FY 1978, the Regents established a special trust account to be used for strengthening the Smithsonian's collections through purchase of major works of art and objects of scientific and historical value, and to allow for the funding of special projects important to the research and educational functions of the Institution. Since inception, about \$20,000,000 in unrestricted trust funds have been used by the programs. In FY 1986, \$2,650,000 was approved by the Regents: \$1,000,000 for scholarly projects, \$550,000 for educational activities, and \$1,100,000 for collections acquisitions. These funds, along with some earmarked in each year for similar purposes, make possible important activities in various museums and other bureaus of the Institution, including major acquisitions for the Hirshhorn Museum and Sculpture Garden, the Portrait Gallery, the Museum of American Art, the Freer Gallery of Art, the Arthur M. Sackler Gallery, the Cooper-Hewitt Museum, and the Museums of Natural History, American History, and African Art. The funds have also supported major scholarly studies and educational efforts, scientific workshops and conferences, student intern programs, Native American training programs, presentations, programs and performances for special groups including the handicapped and the elderly, and weekend films and lectures for the general public. It is anticipated,



Indian performers delighted visitors to the National Museum of Natural History this summer with performances and demonstrations throughout the ADITI exhibition. Photo by Tracey Eller.

given available funds, that these Regents' programs will continue during the planning period.

In FY 1985, the Board of Regents approved an annual trust-funded allocation for major temporary exhibitions as proposed by organizations of the Institution. The Special Exhibition Fund is budgeted for \$3,000,000 in FY 1986 and is expected to increase to \$4,500,000 during the planning period, given the availability of funds. The cost of exhibition programs has generally been met with Federal funds which will continue to provide the predominant financing for the Institution's overall exhibition effort, as supplemented by donations from individuals, foundations, and corporations. Subject to a competitive review and selection process, the temporary special exhibitions must be of sufficient importance to provide a benefit to the viewing public and accompanied by a scholarly catalogue or similar work. "The Magnificent Voyagers" recently opened by the National Museum of Natural History introduces to the American public the U.S. Exploring Expedition of 1838-1842 and establishes its place in the development of natural and naval science in America. Exhibitions currently in the planning stage are: "Field to Factory: Afro-American Migration 1915-1940" by the National Museum of American History which will portray the movement of hundred of thousands of Afro-Americans from southern states to northern urban centers during and after World War I; and "Generations: Birth Rituals and the Roots of Becoming," the opening exhibition for the International Center Gallery in the Quadrangle that will focus on the universal experience of birth, the symbolic content of which has been incorporated into the mythology of every culture, and its symbols manifested artistically throughout the world. In addition, seed money was given to the Portrait Gallery for preliminary research for its Bicentennial exhibition of portraits in America from 1700 to 1776.

Museum Support Center Equipment and Operations. During FY 1984, many of the planned laboratories at the Museum Support Center were established and made operational, and work on completing the rest of these facilities is proceeding. Administrative and building management functions, including the automated data processing center, have been established to serve occupants and users of the Center. Installation of the initial segment of the three-tiered storage system for the "wet" collections (those stored in alcohol) and transfer of collections were completed in September 1985. The remainder of the storage area, about five-eighths of the total available, will be occupied by collections stored in factory produced cabinets placed on the main pod floor and two concrete decks in the pod creating a three-level storage arrangement. The use of concrete decks and storage cabinets represents a significant change from an earlier storage concept involving self-supporting metal racks assembled to create three eight-foot high storage levels similar to multistorage library stacks. This modification became necessary when it was established that the metal rack system could not provide the degree of tightness required to protect the collections against dust and particularly against destructive insects and other pest infestations. Detailed schedules covering all aspects of move-related tasks were prepared for all Smithsonian units involved in the relocation for the initial move of collections. Using these schedules, work has begun on cleaning and packing the collection. As this process continues, collections are placed in staging areas from which they will be moved as the various parts of the storage system become ready to receive them. Move activities, which are governed by strict procedures and



Sweet Honey in the Rock, led by Smithsonian cultural historian Bernice Johnson Reagon, performs at St. Brides Church, Edinburgh. The Smithsonian organized performances by several groups in the Edinburgh Festival's first community outreach program. These were held in conjunction with the exhibition, Treasures from the Smithsonian Institution, at the Royal Scottish Museum, and a symposium involving six Smithsonian museum directors. Photo by Sean Hudson.

standards established to safeguard the collections, are expected to continue through FY 1991.

Future Year Prospectus

Because of uncertainties surrounding the future year impact of Public Law 99-177 on the Institution's resource levels, projections of additional federal program support beyond FY 1987 for Special Programs activities are not contained in the Five-Year Prospectus. Some added resources will be needed to cover uncontrollable expenses, such as necessary pay and inflation; these will be sought.

The Office of Folklife Programs will continue to plan and produce the annual Festival of American Folklife which takes place during the two-week period at the end of June and over the July 4th holiday weekend. Future exhibition plans include cooperation with the Directorate of International Activities in producing exhibits and complementary public programs within the International Center of the Quadrangle. The Office also plans to expand the educational use of its archives, which includes recordings of Festival performances, fieldwork interviews, and documentation of other Office projects and to expand its interaction with national and international scholars through periodic seminars, and publications. With no further federal support, however, the Office will not be able to establish on a permanent basis three components of the annual Festival on the Mall: a Native American Program, a Black American Program and a program on traditions of the workplace. The Native American program focuses on the variety of Indian cultural traditions and their creative adaptations to changing historical conditions. The program on Black American folklife speaks to the richness and depth of the cultural contributions Black Americans make to American culture, and directs scholarly attention to the aesthetic continuity of Black traditional performance and to the tradition's adaptation to changing historical environments. The planned installation of a permanent component on traditions of the workplace would have highlighted the role that tradition plays both in group interaction and in an individual's quest for meaning in work.

For the future, additional needs will be required for the activities of the Office of Fellowships and Grants. If trust funds are available, consideration for significant added support for fellowships and stipends will occur. The Institution has given high priority to this program. Additional funding in FY 1985-87 from the Rockefeller Foundation enabled the Office to offer special fellowships related to Quadrangle programs. Continued increases in trust funding will permit expansion of the program to include more senior post-doctoral fellows as well as increasing the overall number of awards offered. A highly successful visiting scientist and workshop program will be continued within available resources. Increases are also planned for the prestigious Regents Fellowships. These awards are offered to scholars of distinction and breadth of intellect to conduct in-residence studies of major importance.

As part of the effort to enhance minority participation in the life of the Institution, the Committee for A Wider Audience is developing a conceptual design to assist pan-institutional scholarly, educational and outreach staff to consistently attract and involve diverse racial and cultural audiences. Plans also call for providing expanding opportunities

for minority students through internships and the Cooperative Education Program, and to increasing visiting faculty appointments available to faculty members from minority academic institutions.

With constraints on growth the Office of Elementary and Secondary Education will not be able to successfully complete its plan to strengthen the Institution's role in addressing the crisis in precollege education in the United States. This role would have been carried out through predominately three areas of endeavor: increased teacher training; expanded production of supplementary curriculum materials; and concerted efforts to strengthen relationships between museums and schools. In particular, a planned Smithsonian Institution/National Academy of Sciences project directed at improving the quality of science education in the nation's elementary and secondary schools through the development of concepts and materials for teaching, will be affected if additional federal program funds are not made available.

The Office of Smithsonian Symposia and Seminars is involved in planning the Institution's observances of the 200th anniversary of the signing of the Constitution. A seminar is planned, "Learning the Duties of Citizenship," which will examine childhood experience as preparation for adult civic responsibilities; this is one of several activities of the Smithsonian's ninth international symposium, with this one devoted to the theme "Constitutional Roots, Rights, and Responsibility" in 1987. The Office will also contribute to a special colloquium being planned for the opening of the Quadrangle.

Equipment and moving costs for the Museum Support Center are expected to continue over the planning period, but decline to about \$1,000,000 from FY 1987 levels of \$4,500,000. Federal increases for other museum programs are not projected for FY 1987-91. Some growth in trust support for the Collections Acquisition, Scholarly Studies, Education program and the Special Exhibition program is projected, but as is the case for other Trust funded programs, this support is contingent in future years on economic conditions, institutional priorities, and the abilities of the various auxiliary and revenue producing activities to sustain their popularity and financial performances.

ASSOCIATES PROGRAMS

Founded in 1965 on the 200th birthday of James Smithson, the original Associate Program was designed especially for residents of the Washington metropolitan area, drawing on the varied resources of the Institution to provide educational and cultural opportunities to individuals or families who chose to join. The larger institutional aims in public education, however, have always been to make Smithsonian resources increasingly accessible to people of all ages and without regard to their geographic distance from the National Mall. With the establishment of the Smithsonian magazine in April 1970 as a major benefit and feature of a membership program, the original Smithsonian Associate Program has evolved now to include separate National and Resident organizations which offer educational and learning experiences geared to public constituencies in the Washington area, as well as across the country.

This chapter covers future plans, changes in activities, and resource estimates for Associates programs, including the National and Resident Associate Programs, the Office of Membership and Development which coordinates these Programs, and the Smithsonian magazine which is part of the Office of Public Service. The recently established Air and Space magazine is included in this chapter because of revenue producing and constituency development potential.

Current and Projected Resources

These trust-funded operations in FY 1985 had revenues totaling over \$81,700,000 and 183 employees. Minor amounts were also available from special purpose funds and restricted gifts and grants. As a group they generated approximately \$12,700,000 in unrestricted trust income for the Institution in FY 1985 after cost of sales, payroll, and other operating expenses. Gross expenses for unrestricted trust Associate operations amounted to over \$69,000,000.

National and international study tours, lectures and seminars in Washington and across the U.S., and contributing membership activities are the ways through which the National Associate Program serves members without regard to their geographic location. The Resident Associate Program offers a variety of classes, lectures, tours, and other activities for members in the metropolitan Washington area. It has generally been self-supporting since 1972, generating modest net funds each year which are budgeted with unrestricted funds of the Institution. The fund raising and administrative costs of the Office of Membership and Development are considered an expense item against unrestricted funds. Contributions to the Smithsonian from corporations, foundations and individuals totaled over \$5,500,000 in FY 1985. This figure does not include the Contributing Membership Program, contributions from the members of the James Smithson Society, or contributions toward the Quadrangle project or other construction and renovation programs.

The Smithsonian magazine has been one of the most successful public education ventures established by the Institution. Its general acceptance

is a tribute to the role it has played in filling a need for style and elegance, as well as lucid reporting on cultural and scientific developments in today's world. The largest portion of the resources of this group of activities is attributable to the operations of the Smithsonian magazine.

Unrestricted income and expenses for FY 1985 and projected FY 1991 are summarized below:

	<u>FY 1985</u>		<u>Projected FY 1991</u>	
	<u>Full-Time Employment</u>	<u>Funds (\$000s)</u>	<u>FTE</u>	<u>Funds (\$000s)</u>
INCOME:				
Office of Membership and Development		-		-
Resident Associate Program		\$ 3,394		\$ 4,490
National Associate Program		13,044		19,420
Smithsonian Magazine		65,294		93,500
Air and Space Magazine		-		11,875
Total		\$81,732		\$129,285
EXPENSES:				
Office of Membership and Development	15	868	20	1,051
Resident Associate Program	47	3,506	58	4,610
National Associate Program	30	11,981	41	16,665
Smithsonian Magazine	91	52,727	96	77,925
Air and Space Magazine	-	-	23	11,025
Total	183	\$69,082	238	\$111,276
NET GAIN:		\$12,650		\$ 18,009

Future Year Prospectus

National Associate Program. The objectives of the National Associate Program are to provide educational experiences of superior quality in subjects relating to the Smithsonian and to encourage support for the Institution's work. The enthusiastic participation of its national constituency has enabled the Program to meet and advance its outreach goals and has made the Program's fundraising activities a significant source of revenue for the Institution's unrestricted funds.

Each year, representatives of the Smithsonian travel to different cities and present a total of over 200 lectures, seminars, workshops, and performances in cosponsorship with local scientific and cultural organizations. In 1985 the program was extended to Americans residing outside the continental United States, beginning with a series in Tokyo. These

activities are expected to continue to provide exciting learning opportunities for Associates and positive publicity for the Institution.

Associates participated in over 100 foreign and domestic study tours in 1985. A more concerted effort will be made to increase the conversion of these travelers to Contributing Members.

The number of Contributing Members is expected to reach 66,000 by 1991 and the net funds raised by the National Associate Programs for the Institution's unrestricted funds in that year is projected to be \$2,800,000.

Resident Associate Program. In its Twentieth Anniversary Year (FY 1986), the Resident Associate Program (RAP) looks toward a future of enhancing and developing its creative leadership role in museum membership, continuing education, and performing arts, and the strengthening of its public service function. To complement and enhance the exhibitions, research, and collections of the Smithsonian, RAP will organize museum-quality courses, seminars, lectures, films, study tours, and workshops for adults and young people -- both members and the general public. The performing arts segment of RAP will continue to bring to the Smithsonian renowned national and international performing artists to present a range of concerts of classical and contemporary music, poetry, dance, and theater events. Discovery Theater, Washington's premiere live theater for young people, will build on its record-setting FY 1985 season (with an attendance of over 62,000 children and their families) and offer stimulating seasons of live dramatic, musical and puppet performances. RAP's extensive programs which totaled almost 2,000 in FY 1985, and attracted more than 272,000 persons, are expected to increase in attendance by approximately ten percent over the next five years. The program will continue to commission, from time to time, original works of art to commemorate special RAP and Smithsonian occasions.

RAP is planning special programs in conjunction with the national observation of the Bicentennial of the Constitution in 1987, as well as other major Smithsonian or national occasions.

RAP membership totals 56,000 households, translating into approximately 130,000 individuals. The membership retention rate approximated a very strong 79 percent in FY 1985, and should remain at this level or increase slightly in the future. To generate additional members, the program will increase promotions and publicity. As an example of efforts to reach a new constituency, in 1985 RAP initiated new tours and a lecture series designed to appeal to the area's young professionals and singles.

In the past two years, RAP has undertaken telecommunications projects, audio bridging and videotaping lectures and courses to reach national audiences. The program is building on these experiences and is examining further telecommunications opportunities here and abroad.

RAP's commitment to community outreach will continue. Activities include the Scholarship Program for inner city young people and adults to attend RAP courses tuition-free; Discover Graphics offering free etching

and lithography workshops for area secondary school art students and their teachers; the low-priced daytime lecture series for older citizens ("Tuesday Mornings at the Smithsonian"), and the Kite Festival which attracts thousands.

Over the next five years two outreach activities RAP manages must be relocated. Discover Graphics is vacating Landsburgh's Cultural Center and will be eventually relocated to the Arts and Industries Building. In FY 1987 the Discovery Theater will not have use of its theater because of refurbishment of that section of the Arts and Industries building; the Theater will temporarily operate out of various Smithsonian auditoriums.

Automation of RAP's offices, which began in May 1985, is proceeding rapidly. Complete automation of the publication of the monthly Associate newsletter and of general office functions is expected within the next five years. RAP has initiated the use of credit cards for ticketed and other activities and will examine the results carefully.

The National Associate Program and the Resident Associate Program will be moving to, settling in, and becoming acclimated to their new offices and classrooms in the Quadrangle.

Office of Membership and Development. Support of programs in the arts and culture from corporations and foundations recently has diminished. Largely a result of the administration's policy calling for the private sector to assume responsibility in maintaining various human and social services, the trend can be expected to be further adversely affected by new corporate tax regulations. At the same time, the competition for arts and cultural funding is increasing. The case for contributions to the Smithsonian, therefore, now requires more intensive and more comprehensive efforts, a situation which will doubtless persist well into the future.

As a result, the Development Office has been planning several constructive measures. These include an expansion of the staff so as to permit more personal approaches in solicitation of corporations, foundations and individuals. A larger staff will also make possible increased attention to deferred giving to the Institution through such charitable remainder trusts as the Pooled Income Fund, unitrusts and annuity trusts, as well as wills and bequests. A new development brochure will be produced to help present the Smithsonian's needs for a wide variety of private support, making clear the historic relationship with federal appropriations. In addition, development activities are being decentralized somewhat in order to encourage the individual bureaux to become more active in seeking private support.

Finally, the capital campaign for expansion and renovation of the Cooper-Hewitt Museum is preceding, while another major campaign for acquisition funds for the National Museum of African Art is being initiated.

Smithsonian Magazine. Although the magazine's management is justifiably cautious about the ebb and flow of fashion in publishing, it also expects that the demand for its product will remain strong, with an annual

financial surplus estimated at \$10,000,000 to \$16,000,000 over the next few years. It is primarily from these funds that the Board of Regents has been able to budget for the recently approved Regent's program for acquisitions, scholarly studies, educational outreach projects, and major exhibitions; to fund certain expenses previously met with federal appropriations; and to set aside sums each year for the enhancement of the Institution's endowment. The magazine will continue to produce a high quality product, supported entirely by the trust revenues which it generates. New growth in subscribers is expected to average 25,000 a year from the present level of about 2,000,000. If required because of inflationary cost increases associated with production and mailing, subscription rates may increase in future years.

Air and Space Magazine. The first issue of this newly approved venture is due out in April/May; it will be published bi-monthly. The magazine will explore the realm of human endeavor in flight and in exploration, science, and research within the atmosphere and beyond. It will focus upon aerospace endeavors including aviation and space exploration. Membership benefits, similar to those of the National Associates, will be offered.

With continued good performance by Associate Programs, revenues should increase from the current level of \$81,700,000 to \$129,300,000 in FY 1991, with net income from these activities projected at over \$18,000,000. Detailed expense projections appear in Appendix I.

BUSINESS MANAGEMENT ACTIVITIES

This section covers plans, anticipated changes, and resource estimates for selected auxiliary activities conducted under the auspices of the Business Management Office. These revenue producing activities include the Museum Shops, Mail Order Division, Concessions, Parking, and Product Development and Licensing operations. The revenue producing activities of the Smithsonian magazine, Smithsonian Press, and Traveling Exhibition Service are separate from the Business Management Office, and are presented in appropriate chapters and tables corresponding to the organization of the Institution and the FY 1987 budget submission.

The operations described in this section, like the Institution's Associate Programs, are an effort to offer the public a diverse range of services, to make the Smithsonian more accessible, and to enhance the educational experiences generated by exhibitions and other activities.

Current and Projected Resources

In FY 1985, these trust-funded operations had revenues totaling some \$36,500,000 and 276 employees. As a group they generated over \$6,100,000 in unrestricted net income for the Institution after cost of sales, payroll, and other operating expenses. By FY 1991, gross income from these activities is expected to increase by over \$21,500,000 with a net gain of approximately \$9,400,000 being made available for application to various activities and programs of the Institution.

	<u>Full-Time Employment</u>		<u>Unrestricted Funds</u> <u>(\$000s)</u>	
	<u>FY 1985</u>	<u>FY 1991</u>	<u>FY 1985</u>	<u>FY 1991</u>
INCOME:				
Business Management Ofc.			\$ 155	\$ 635
Museum Shops			17,185	23,500
Mail Order Division			16,483	30,150
Concessions			1,419	2,020
Parking			<u>1,233</u>	<u>1,690</u>
Total			\$36,475	\$57,995
EXPENSES:				
Business Management Ofc.	8	8	\$ 383	\$ 860
Museum Shops	195	245	15,219	21,200
Mail Order Division	55	124	13,157	25,460
Concessions	1	1	1,045	360
Parking	<u>17</u>	<u>17</u>	<u>530</u>	<u>730</u>
Total	276	395	\$30,334	\$48,610
NET GAIN			\$ 6,141	\$ 9,385

Business Management Office. In addition to the administration of the business activities listed below, this office is responsible for the product development and licensing program which makes reproductions and other products closely related to the Smithsonian collections available for purchase by individuals throughout the country, through licensing agreements with various manufacturers.

Museum Shops. The Smithsonian has provided sales desks since the 1860s, but substantial sales results are a recent development. Centrally managed museum shops are located in the Museum of American History, the Museum of Natural History, the Arts and Industries Building, the Air and Space Museum, the Hirshhorn Museum and Sculpture Garden, the Museum of American Art, the Portrait Gallery, the Renwick Gallery, and the Museum of African Art.

Items offered for sale in the museum shops are selected to meet special requirements. Each item must expand the educational value of an individual's visit, relate to the collections, be appropriate to the museum where sold, and conform to high standards of quality and taste. Catalogues and other publications derived from exhibition themes and subjects, including works by Smithsonian scholars, are important to the museum shops. Other items include reproductions of artifacts, craft products, and educational games and toys for children.

Mail Order Division. Formed in 1975, the Mail Order Division produces several catalogues each year. These catalogues are sent to Associates and offer special items selected to reflect Smithsonian collections and programs. High standards of quality, taste, and educational value are maintained. Over 300,000 catalogue orders are processed annually through the Division's receiving and shipping center in Springfield, Virginia.

Concessions. Through concession arrangements, the Institution provides visitors with restaurant facilities and recorded tour rental systems in the major Smithsonian museums. An old-fashioned ice cream parlor is also operated by a concessionaire in the Museum of American History. Other concessions include the popular carousel and popcorn wagons on the Mall during the spring and summer and the shop, restaurant, and parking facilities at the Zoo.

Parking. Parking revenues are generated by the parking garage located under the Air and Space Museum. Supplemental fees are charged to Associates and the public parking on other Smithsonian lots during weekends.

Future Year Prospects

In the period from FY 1986 to FY 1991, the primary focus in the Business Management activities will be on improving the quality of goods and services offered to the public as well as the operational efficiency of the business activities. Expanded program activity will be associated primarily with the opening of new museum shop facilities in the Quadrangle replacing the existing shop of the National Museum of African Art; the renovation and expansion of existing facilities in the National Museum of

Natural History and the National Air and Space Museum; and increased efforts in product development and licensing. All plans are highly dependent on available resources. As in the past, high standards for the quality and value of goods and services will be maintained. Detailed projections appear in Appendix I.

ADMINISTRATIVE, FINANCIAL, AND OTHER SUPPORT SERVICES

Organization units described in this chapter include central management functions provided by the offices of the Secretary, Under Secretary, Assistant Secretary for Administration, General Counsel, Treasurer, Congressional Liaison, and Director of Facilities Services. They also include the following specialized administrative and technical offices: Accounting and Financial Planning, Audits and Investigations, Contracts, Equal Opportunity, Grants and Risk Management, Information Resource Management, Management Analysis, Personnel Administration, Printing and Photographic Services, Programming and Budget, Public Affairs, Special Events, Supply Services, and Travel Services.

The facilities services offices are included under this chapter: Design and Construction; Plant Services; Protection, with primary orientation to the physical plant and its contents and to safety and health services for visitors and staff; and the Keeper of the Castle, which provides research and collections management for the Castle Building and its collection of antique furnishings. To be consistent with budget presentations, resources associated with the Office of Horticulture, South Group Building Management, and Quadrangle Building Management are included in the tables of this chapter as part of physical plant services.

These central administrative, financial, technical and other support services provide overall planning, policy determination, direction, and leadership to the Institution; management of its resources; and evaluation of its work. These units furnish legal counsel; financial management; and other administrative, professional, and technical services required to support the Smithsonian's programs; to maintain, operate, and protect its physical plant; to perform health and safety services; and to assure that the Institution complies with all appropriate laws and regulations and is fully accountable for its actions.

Current and Projected Resources

These organization units had FY 1985 resources totaling about \$71,000,000 (including about \$15,500,000 for utility, communications, and rental costs) and 1,546 full-time employees. Of this total, approximately \$60,000,000 and 1,338 full-time employees are provided from appropriated funds and \$11,000,000 and 208 employees are allocated within the Institution's nonappropriated trust fund budget. A breakdown of resources (before application of overhead recovery) follows for FY 1985 and projected to FY 1991.

<u>Subgroups</u>	<u>FY 1985</u>		<u>FY 1991</u>	
	<u>Funds</u>		<u>Funds</u>	
	<u>FTE</u>	<u>(\$000s)</u>	<u>FTE</u>	<u>(\$000s)</u>
Central Management Offices				
Federal S&E	32	\$ 1,608	35	\$ 1,781
Trust Funds	18	1,694	18	3,283
Specialized Administrative and Technical Offices				
Federal S&E	215	\$ 9,785	217	\$11,096
Trust Funds	167	7,294	178	8,443
Facilities Offices				
Federal S&E	1,091	\$49,058	1,301	62,269
Trust Funds	23	1,576	19	2,221
Total	<u>1,546</u>	<u>\$71,015</u>	<u>1,768</u>	<u>\$89,093</u>

Unrestricted trust funds are allotted to the management and support units to achieve an appropriate balance of federal appropriation and trust fund support in these units since they serve the entire Institution. These funds are used primarily for personnel who perform assignments similar to those of staff paid from appropriated funds. Several support units administer unrestricted trust funds for more specialized purposes. The Office of Printing and Photographic Services receives income from the sale of photographic materials to the public. The computer center of the Office of Information Resource Management and the audiovisual unit of the Office of Plant Services operate on a cost recovery basis by charging users for the services provided.

Future Year Prospectus

Because of uncertainties surrounding the future year impact of Public Law 99-177 on the Institution's resource levels, projections of additional federal increases beyond FY 1987 for Administration, Financial and Other Support services are not contained in the Five-Year Prospectus, although some amounts will be needed to cover uncontrollable expenses such as necessary pay and inflation. The projections do contain requirements for increases to institutional rent, utilities, and communications and for security and maintenance to successfully establish support to the Quadrangle facility.

Major emphases of the administrative, financial, and other support offices over the planning period include the maintenance of the physical plant, improvements to financial and other management systems, continued strengthening of internal controls and accountability systems, and provision of adequate security, safety, and health systems.

The major facility event will be the completion in 1986 of the Quadrangle project now under construction with public opening of its museums and other education resources in 1987. Administrative, financial, and support costs identified to date associated with Quadrangle

operations are contained in bases of the participating organizations and are aggregated in Table 3. The Institution will continue to maintain and upgrade its physical plant to guard against deterioration, to improve energy efficiency, to provide for health and safety requirements, and to assure that space assigned meets priority program needs. Additional details on the Smithsonian's capital program appear in the Facilities Planning, Construction, Restoration and Renovation chapter and the Beyond FY 1991 chapter of the Prospectus.

The provision of timely and high quality services to Smithsonian bureaus and offices and to the public where appropriate will continue to be of primary importance over the planning period. To this end, automatic data processing will be applied as widely as possible in a coordinated fashion to improve efficiencies, reduce the flow of paper, cope with higher workloads and provide more effective communications. Continued attention will be given to the assessment and correction of potentially vulnerable areas of operations. Such activity will be overseen by the Board of Regents and its Audit and Review Committee.

Serious deficiencies in the present levels of funding and staff for the maintenance of the physical plant and for support to building-related programs, such as exhibits installations, must be corrected. Within current projected levels of fund availability desirable support levels will not be achieved. Security, safety, and health programs will receive continuing attention, but many projects may have to be rephased in light of budget constraints. Guard and other security personnel will be added to meet the operating needs of the Quadrangle, but those needed to provide a more acceptable level of coverage in present public and other spaces for the protection of facilities, natural areas, collections, visitors, and staff may not be available. The Institution's proprietary alarm system, having been installed and tested in the Museum Support Center, needs to be extended to buildings on the Mall and elsewhere, but all necessary funding required to achieve this over the planning period may not be available. Simultaneously, the program of upgrading alarm and other security equipment and devices will continue, although at a lower pace than previously projected. The conversion and elimination of nitrate film materials from Smithsonian collections for safety reasons will be completed and progress will continue to be made on the elimination or containment of such hazardous substances as asbestos or PCBs.

Operating budget resources required to meet these priority objectives and to sustain adequate levels of operational support by the organizations in the administrative, financial, and other support category may approach \$90,000,000 in FY 1991 from the FY 1985 level of \$71,000,000.

Detailed projections for centralized, specialized and technical, and facilities offices appear in Appendix I. These figures do not include about \$6,000,000, in federal support projected earlier but eliminated because of the uncertainty surrounding the future year effect of Public Law 99-177.

FACILITIES PLANNING, CONSTRUCTION, RESTORATION AND RENOVATION

The Smithsonian's responsibility for its museum buildings and other facilities requires a continuing program of repairs and maintenance (some of which is accomplished by staff with funds provided in operating budgets), renovations and restorations, and new construction. The objectives of this program are to provide appropriate, safe, and accessible facilities for research, education, and care of collections. Federal appropriations are the primary source of funds for this work, but, starting with the funding of the original Smithsonian Institution Building, other sources of funds have at various times become available for particular projects.

Beginning in the mid-1970s, the Smithsonian established improvement of its facilities and their operation as one of its highest priorities. This decision to emphasize building repairs and improvements through the budget process reflected the Institution's great concern for the condition of its buildings, many of which date back to the turn of the century, and the fact that many millions of dollars are required each year for their maintenance and improvement.

Considerable progress has been made in determining the extent to which additional facility support is required. A number of critical projects have been completed and a number of other major projects have been started. These projects include periodic work such as roof replacement, terrace resurfacing and waterproofing, replacing heating and air conditioning equipment, fire detection and suppression improvements, etc. Some \$73,388,000 of work can be accommodated within the current OMB projections for FY 1987-91; scheduling of projects is under review.

Redevelopment of the Zoological Park began in 1970 and has now reached a point where now only several improvement and exhibition projects remain. About \$43,351,000 of work will be accomplished through FY 1986; about \$24,255,000 of work can be accommodated within the current OMB budget projections for FY 1987-91 at Rock Creek and at the Conservation and Research Center at Front Royal; scheduling of projects is under review.

Of highest priority over the next few years is the completion of the Quadrangle construction. This chapter outlines construction projects for the General Post Office Building, the Tropical Research Institute, the Whipple Observatory, Cooper-Hewitt, and the Air and Space Museum. Because of the limitations of the five-year budget projections, the Institution cannot anticipate when funding will be sought for construction projects beyond those included in the FY 1987 request; and a table portraying the FY 1988-91 phasing of the projects is not included. The Institution's most urgent priorities are described in this Prospectus for general planning purposes.

Summary of
Construction, Renovation and Restoration
FY 1987 Requested and FY 1988-91 as
Contained in OMB Projections
(\$000)

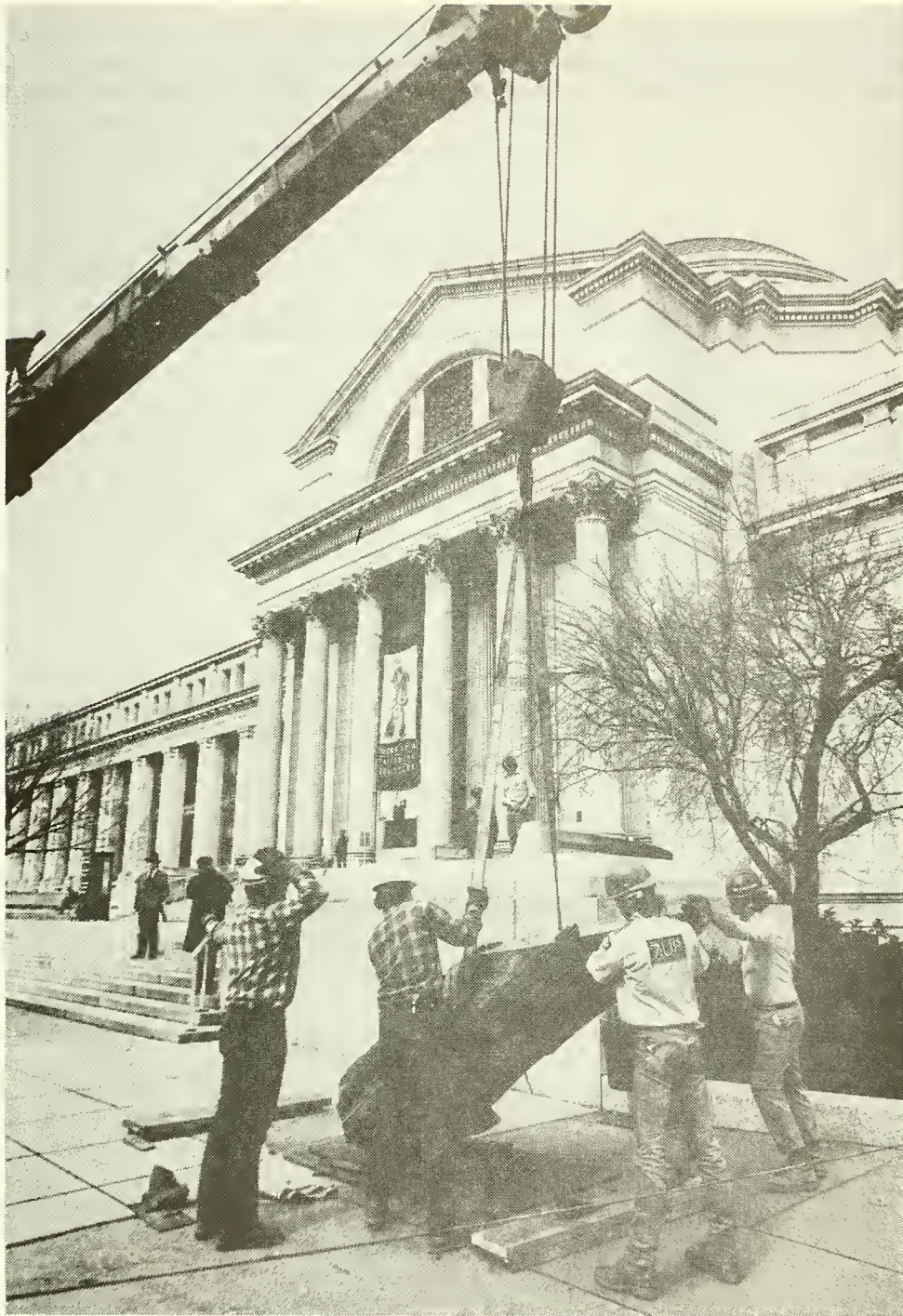
	<u>FY 1987</u>	<u>FY 1988</u>	<u>FY 1989</u>	<u>FY 1990</u>	<u>FY 1991</u>
Smithsonian	\$ 7,500	-	-	-	-
Construction					
Renovation and	12,828	\$15,140	\$15,140	\$15,140	\$15,140
Restoration					
Zoological Park					
Construction and	4,851	4,851	4,851	4,851	4,851
Renovation and					
Restoration					
Inflation for	-	780	1,550	2,291	2,987
Renovation and					
Restoration					
	<u>\$25,179</u>	<u>\$20,771</u>	<u>\$21,541</u>	<u>\$22,282</u>	<u>\$22,978</u>

Construction

Quadrangle Development

Public Law 96-36 signed by the President on July 20, 1979 authorized planning for development of the Quadrangle. In FY 1982, \$960,000 was appropriated to complete planning and design for the Quadrangle which encompasses 4.2 acres of land bounded by the Smithsonian Institution building, the Arts and Industries building, the Freer Gallery of Art, and Independence Avenue. This project, including a connecting link and modifications to the Freer Gallery, is now estimated to cost \$73,160,000, and is being financed by government and private sponsors. An amount of \$36,500,000 was appropriated in FY 1983 to allow the Institution to construct the primary building. Because a very favorable construction contract was awarded by the General Services Administration in FY 1984, the Congress reduced the construction appropriation by \$8,000,000. Legislative language accompanying this reduction allowed the Institution to make subsequent properly justified requests necessary to bring the project to fulfillment. Completion of the Quadrangle building is expected in 1986; its opening is scheduled for 1987. In the FY 1986 budget request, the Institution received a restoration of \$4,000,000 for purchase and installation of the security system and furnishings required for public, administrative and shop areas. The remaining \$4,000,000 is being requested in FY 1987 to provide for construction of the link to the Freer Gallery of Art, allow additional contingency, complete government furnished equipping, and cover construction management costs of the final phase of work.

The Quadrangle building will include exhibition galleries and supporting museum facilities for proper display of unique collections of the Museum of African Art and for the expanded collections of Near and Far Eastern art to be known as the Arthur M. Sackler Gallery. There will also



Workmen hoisting petrified log into place on pedestal at Mall entrance of the National Museum of Natural History. This "natural sculpture" was unveiled at the Museum's 75th Anniversary party. Photo by Chip Clark.

be space for the Smithsonian Institution Traveling Exhibition Service, Resident and National Associate Programs, public education facilities, and the International Center. The joining of these activities and programs in one area will enable the Institution to apply, in a coordinated fashion, major resources to benefit millions of visitors who travel to Washington each year.

Operating costs for those units expected to occupy and support the facilities are aggregated and contained in Table 3 of this Prospectus.

Science Facilities Development

The Institution intends to seek from Congress in FY 1986 and future years planning and construction authorization for science facilities development. Designation of specific years for appropriations requests by individual Institutional project is under review, and will be analyzed against the backdrop of present and future economic conditions. Within current levels of projections, about the most the Institution can hope for is obtaining the FY 1987 requested \$3,500,000 for the Tropical Research Institute's terrestrial laboratory (described below), with some follow-on funding of about the same amount in FY 1988 for a science facility project yet to be selected. Unlike prior year repair and improvement activities, current research objectives include a coordinated effort to improve science facilities commensurate with the Institution's longer range scientific expectations. These construction projects are as follows:

Tropical Research Institute

The Smithsonian Tropical Research Institute (STRI), located in the Republic of Panama, is the principal U.S. center for tropical biology. Each year hundreds of U.S. and international researchers join the permanent STRI staff in undertaking fundamental studies on the tropics. Increasingly scientists and policymakers have recognized the need to understand how tropical ecosystems function in order to predict more accurately environmental changes in the temperate zones.

To capitalize on STRI's unparalleled data base of more than sixty years, and to improve existing deficiencies to the physical plant, it is necessary to undertake the facilities improvements outlined below. A Master Plan has been initiated by a major architectural/engineering firm to assist in guiding this program and will be completed in the spring of 1986.

Existing STRI facilities include buildings constructed in the 1920s and 1930s and renovated structures obtained from the U.S. military and other agencies. With the exception of a new library building opened in 1984, these facilities are inadequate because of age, size, safety, and health standards. Construction materials used in the first half of the century are inappropriate to the region's high humidity and insect infestation, and renovation of surplus buildings has served only as a stop-gap measure to ensure continuity of research. The structures are inadequate for modern scientific purposes and require extensive maintenance.

The most pressing needs for STRI is a new terrestrial laboratory to replace a small and obsolete leased structure at Ancon. Originally built as a hospital morgue, the facility does not adequately support current research purposes. It has severe deficiencies in its electrical systems, plumbing, load-bearing capacity, and parking, and in the wide-spread presence of arsenic and other health-related problems. Furthermore, its hillside location makes extensive renovation and the addition of outdoor cages and plant-growing facilities impossible.

The construction of a new terrestrial laboratory at the nearby administrative headquarters, known as the Tivoli site, will allow proper space utilization for permanent staff, long-term visitors, and students. Better integration of computers, other communications devices, and modern scientific equipment will be afforded in the new facility, as will space for cages and greenhouses and for lectures, small meetings, and major conferences. Construction and equipment for the new laboratory is currently estimated at \$7,500,000. A gift of \$4,000,000 for construction has recently been received. An additional \$3,500,000 is required for completion of the project; this amount is included in the budget request for FY 1987.

Barro Colorado Island, located in the middle of Gatun Lake, a key component of the Panama Canal, has served as an important research center for tropical biology since 1923. Under the Canal treaties, STRI was assigned custodianship of this 12,000 acre reserve on behalf of the U.S. and the Republic of Panama. The island serves hundreds of investigators annually, providing research space, as well as living and dining accommodations. Its physical plant includes many outdated wooden buildings which do not meet modern day building or health codes. Using Restoration and Renovation monies, the Smithsonian has made some improvements to the basic electrical, water, and sewage systems. The major requirement now is a new scientific laboratory with attendant cages and growing facilities.

The geographical advantages of Panama to researchers interested in marine studies are incomparable: nowhere else in the world are two oceans so easily accessible for comparative research. Currently, renovated facilities are available on the Pacific, but no similar situation exists on the Atlantic. STRI research there is conducted at Galeta Point in a small aluminum building acquired as surplus property from the U.S. Navy in 1965. The present laboratory has a severe asbestos problem in its walls and roof. Housing for researchers consists of a dilapidated trailer which does not meet safety and health codes; an inadequate sewage disposal system threatens the unique coral reef/mangrove swamp study site. A new laboratory, dormitory, and sewage system located at Galeta or a more appropriate Atlantic site will be required.

STRI is responsible for more than sixty vehicles, a major research vessel, and dozens of small boats, in addition to normal building maintenance. At present the maintenance needs of its geographically dispersed facilities are performed in the bottom of an old torpedo factory; the top floor houses research offices. In order to provide for adequate maintenance, to relieve the noise and congestion of the present site, to

increase physical proximity to suppliers, and to buildings and equipment to be repaired, a new central facility with modern equipment is required.

Whipple Observatory

Further development of base camp facilities at the Whipple Observatory near Tucson, Arizona is required to support expanded research activities associated with the installation of the Multiple Mirror Telescope. The Observatory is located on a 4,744-acre site on Mount Hopkins which is controlled by the U.S. Forest Service and reached by a limited-access road that originates at the observatory administrative headquarters location in Amado, Arizona.

The present administrative and support facilities of the Observatory, which serve all mountain-top activities, are located in an office and maintenance complex west of the Santa Cruz River, and 18 miles from the scientific operations on Mount Hopkins. This base camp is the operational and logistical headquarters for anyone working at or visiting the mountain. Its site consists of two adjacent leased parcels of land totalling approximately 4.25 acres; its facilities include a one-level school building and a one-level residence which have been converted for office use. There are also vehicle service, repair, and storage sheds on the site.

The owner of one of the two presently leased parcels has indicated a desire to sell the property in the near future. The site was the primary focus of P.L.98-73, approved August 11, 1983, which authorized appropriations of \$150,000 for the Institution to purchase land in Santa Cruz County, Arizona for a base camp. Almost immediately after enactment of the measure it became clear that the purchase price of the property would exceed the authorization. More significant, however, were the rains that fell in October 1983 and the immensely destructive flooding of the normally dry river that ensued. The bridge between the base camp and the mountain facilities was washed out, making access very difficult and adding two hours to the already arduous round trip to and from the summit. In view of these circumstances, the Smithsonian is no longer a prospective buyer of the existing parcels.

Recently the Smithsonian completed the first phase of a master planning process to locate a more appropriate site for a base camp and to make efficient use of the space available. After a thorough review the Institution has selected as its first choice a site under the control of the Forest Service, closer to the mountain than the existing one, and east of the Santa Cruz River.

The second and final phase of the master planning process includes spatial analyses of the site, plans for its development, related environmental documentation, and refined estimates of the cost. Two alternative sites under the control of the State of Arizona are in the same general area; they will be investigated as back-up sites in case the Forest Service land proves inappropriate or unavailable.

The proposed new base camp will consist of administrative offices and a Visitor Center, a motor pool and warehouse facility. Administrative

office space will provide for purchasing, fiscal, engineering, secretarial, and public information activities. A small Visitor Center will offer displays and briefings about the activities being conducted at the Observatory. The motor pool facility will support more than 60 vehicles, including buses and heavy machinery used for road maintenance. Enclosed motor maintenance shops are required because of weather extremes, and space is needed for spare parts storage. A warehouse is also required for the secure storage of goods and equipment going to and from the Observatory. Appropriate paving will be required for pedestrian walkways, driveways, and parking and motor pool areas.

Cooper-Hewitt

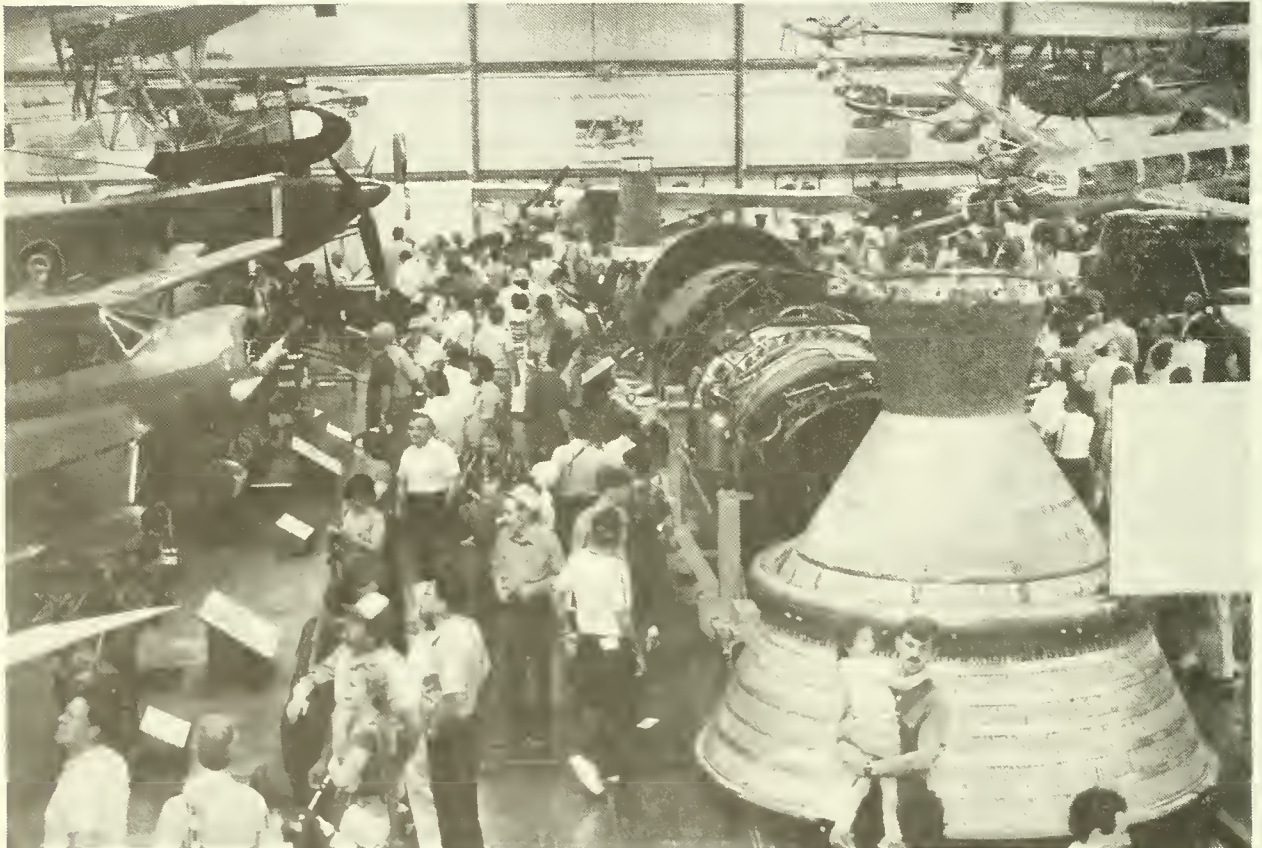
The Institution is planning new construction to make maximum use of the land and space available for Cooper-Hewitt operations. A new wing would be constructed in the parking area adjacent to the Carnegie Mansion, and the Miller townhouse renovated. This would add substantially to the Museum's capabilities for special changing exhibitions and educational programs, and allow the Carnegie Mansion to house the Museum's permanent collections and exhibitions. A fund-raising effort is beginning with a goal of about \$11,500,000, representing about one-half the requirement. Legislation authorizing construction and the remaining funds is pending.

Air and Space Museum

Because of the size of air and space craft, it is uneconomical to provide collection storage space in the Mall building. Therefore, the Air and Space Museum has used temporary metal storage buildings at a 21 acre site at Suitland, Maryland acquired by the Institution for this purpose in the mid 1950s. Periodically since acquiring this facility, additional metal buildings have been constructed to a point now where both they and the site are filled to near capacity. Also, during these intervening years, the Suitland area has been developed intensely, making transportation of large modern aircraft to the Air and Space facility, now known as the Paul E. Garber Facility, extremely difficult.

Over the past five years staff of the Air and Space Museum have evaluated potential locations at or near airports in the Washington region that could accommodate storage and exhibition structures and permit relocation of aircraft from the Garber Facility, and receive by air transportation new objects such as the recently acquired space shuttle Enterprise and a promised Concorde. This search resulted in the selection by the Museum of the Federal Reservation at Washington Dulles International Airport in Virginia. Preliminary and informal discussions with the Federal Aviation Administration indicate that sufficient underdeveloped acreage and general interest exists to warrant serious consideration of this location and further study and planning.

Following approval of the concept members of the Board of Regents have introduced legislation authorizing planning and construction of a proposed facility on which a hearing has been held. Further feasibility exploration and preliminary planning will be pursued once authorization has been received. The Institution foresees that four aircraft type



The Garber Facility, home of the National Air and Space's reserve collection, displays more than 90 aircraft "wingtip to wingtip." During the Wings and Things Open House held each spring, the Facility opens its doors for the fun-filled weekend. Free concerts, model aircraft building demonstrations, safe telescope viewing of the sun and an opportunity to talk with craftsmen as they restore aircraft are all part of the annual event. Photo by Mark Avino.

hanger buildings of approximately 100,000 square feet each might be constructed to meet present and future requirements.

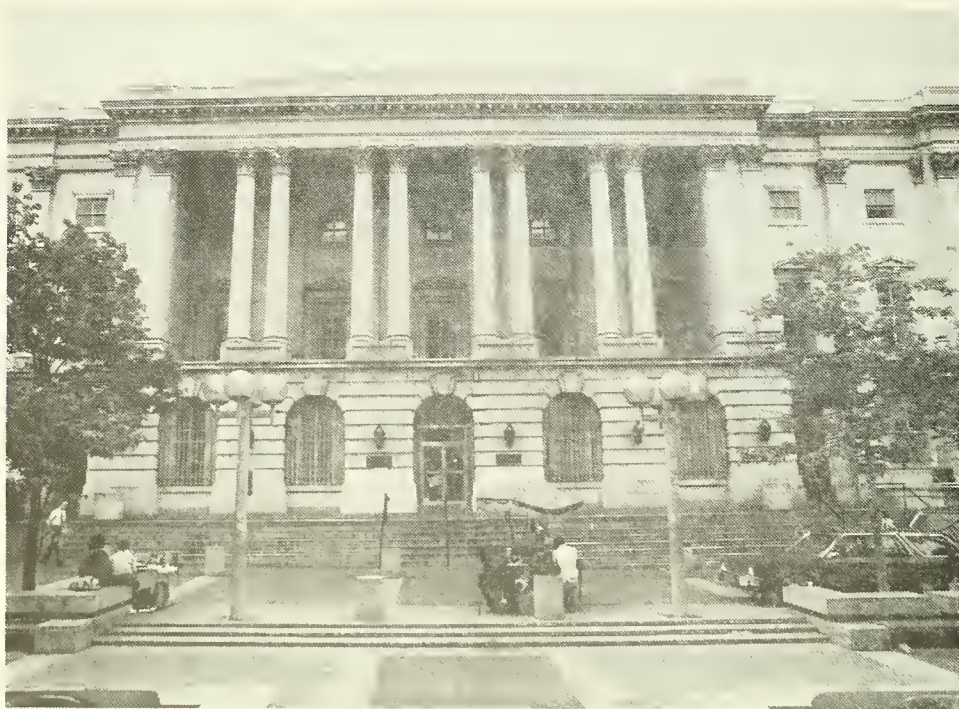
General Post Office

Since 1958, when the Institution acquired the Patent Office building, it has been interested in obtaining the General Post Office building, which is immediately across F Street and further bounded by 7th, 8th and E Streets. Both buildings are the work of America's first native-born professional architect, Robert Mills of South Carolina, who also designed the Washington Monument and the Treasury building. The General Post Office (the fifth oldest Federal building in Washington, D.C.) is proposed to be used for expanded public activities of the National Museum of American Art, the National Portrait Gallery, and the Archives of American Art now housed in the Patent Office building. These landmark structures, connected by a tunnel under F Street, are expected to meet the needs of the three bureaus well into the next century.

The Institution has made known to the General Services Administration its long term requirement for space at the General Post Office. Authorization has been given to transfer the building to the Smithsonian without reimbursement, contingent on GSA securing suitable quality space for the relocation of the current occupant, the U.S. International Trade Commission.

The General Post Office offers space for a wide range of public museum activities such as exhibitions, the study of collections, classes and seminars. An auditorium for lectures, films, and other purposes, urgently needed by the programs in the Patent Office Building, can be created in the General Post Office. Conversion of the building to public use, including weekend and evening education activity, also would add significantly to the emerging cultural and art corridor along 8th and 7th Streets that has been encouraged by the Pennsylvania Avenue Development Corporation. A specific program is being developed for the use of the building; a total project cost of \$40,000,000 has been estimated.

Preserving this historic landmark and converting it to public purposes will require a comprehensive program that must meet the special requirements of museums for fire protection and climate control in order to preserve the collections with which they are entrusted, while also providing for the safety and accommodation of visitors. Elements of such a program will include restoring all of the original interior and exterior architectural finishes; razing the courtyard building and glass roofing the entire courtyard area; replacing the perimeter windows with thermopane glazing; modernizing all electrical and plumbing systems; providing new insulation, a vapor barrier, and a heating and air conditioning system with industrial controls; replacing existing fluorescent lighting with fixtures reminiscent of the period in which the building was constructed; and installing smoke detection and sprinkler systems along with other security equipment.



Exterior view of the General Post Office Building from 7th and G Streets, N.W. Photo by Jeff Ploskonka.



Interior view of the General Post Office Building. Photo by Jeff Ploskonka.

Zoological Park and Conservation Research Center

Zoological Park Redevelopment

Veterinary Hospital - The National Zoo currently operates its animal health, pathology, and basic research program out of inadequate, inefficient and potentially dangerous facilities. For FY 1986, a sum of \$3,300,000 was appropriated to construct a new animal health and pathology building. The existing hospital and research building is now nearly seventeen years old and was an unsatisfactory compromise between needs and available finances when it was first built. It never has met the need for a modern veterinary hospital or the high standards necessary for animal health at the Zoo.

The new hospital will be completely self contained and built in the vicinity of the existing hospital/research facility. It will contain approximately 17,000 square feet and be designed around a large operating room with adjoining anesthesia, diagnostic, pre-operative, and recovery rooms. Access to the treatment cluster from the outside will be by way of a wide corridor leading from a large ramp for ambulances. Unlike the old hospital it will incorporate modern ergonomic principles. The modern design will facilitate good medical practice and eliminate the problems encountered in the present design. The old hospital space will be refurbished to provide much needed modern research space with funds being sought in FY 1987.

Research Facility - With the construction of the new hospital facility at Rock Creek, the existing health and research facility will be renovated to house all research functions of the National Zoo. The renovation will correct several structural and mechanical deficiencies and will provide the Zoo with a first rate research facility including five environmentally controlled animal holding rooms; animal support areas; research support areas and staff offices. Renovation of the research facility is estimated to cost \$2,500,000.

Olmsted Walk - Restoration and construction of the Olmsted Walk was started in FY 1985 with emphasis given to preserving and enhancing the natural and historical character of the Park. Some exhibits along the Walk will be renovated to enhance the visitor's experience in viewing the animals. New surfacing materials for the Walk, adequate drainage, new landscaping, additional benches and drinking fountains, and improved graphics will be provided. These efforts will assist in unifying the exhibits and grounds and in providing a pleasant and educational experience at the National Zoo.

The first phase (through FY 1986) will concentrate on the section of Olmsted Walk from the Rock Creek entry up to the Great Ape Facility. This phase will create an identifiable pedestrian entrance at the Rock Creek side of the Zoo which will allow visitors a proper orientation point at the beginning of their visits. A new Gibbon Facility and modified tortoise yard will be included in this phase. The main walkway will be modified to loop around in front of the reptile and monkey houses by constructing a winding walkway more in line with the spirit of the

original Olmsted design. This phase is scheduled to be completed by the fall of 1986.

The second phase will renovate the opposite end of the Olmsted Walk beginning on Connecticut Avenue. At the entrance to the education building, a plaza will be created which will include an information kiosk. Walkways adjacent to the existing sable antelope, bongo, and dorcas gazelle exhibits will be modified to provide access to the plaza.

The final phase will modify the Walk from just past the education building to the Great Ape Facility. The Walk in this area will be renovated to provide the visitor with a better view of the surrounding exhibits. A third entry point to the Walk will be constructed in this phase.

Aquatic Exhibits - Unlike the aquarium in Baltimore, the proposed aquatic habitat facility will include not only fishes but the full range of aquatic animals such as aquatic mammals, birds, reptiles and amphibians. Another essential difference is that the NZP will concentrate on freshwater animals while Baltimore concentrates on animals found in the marine ecosystem. Hence, the two facilities will be complementary rather than duplicative. Together with the invertebrate exhibit slated for opening in the summer of 1986, the proposed aquatic habitat facility fills the last gap in the Zoo's presentation to the public of representatives of all the major animal groups. To date emphasis has been placed almost exclusively on terrestrial animals in our natural world despite the fact that over sixty percent of the world's vertebrate animals are fishes. The animals proposed for exhibition will include those not heretofore exhibited in most zoos. The world of aquatic animals is little known to the public; hence the proposed exhibit provides an excellent opportunity to educate and entertain the general public on these engaging and important groups of animals.

The first phase, estimated at \$2,500,000, will incorporate a tropical forest and stream displaying aquatic mammals with appropriate fish, invertebrates, birds and amphibians, as well as vegetation. An amount of \$10,500,000 is estimated to complete the design and construction of the facility; prospects for raising private funds in lieu of appropriations are under review.

General Services and Parking Facility - Additional Zoo redevelopment savings are anticipated by reducing the scope of the second phase of construction of the General Services and Parking Facility; \$1,500,000 will be sought for design and cost estimate. The present estimate for construction is approximately \$16,000,000; this estimate will be updated and construction funds of \$12,000,000 sought at a later date. The Institution plans to offset some construction expenses by using parking revenues held in trust; these are expected to amount to approximately \$4,000,000 by FY 1990.

For over a decade the Institution has recognized the requirement for a centralized parking facility at Rock Creek. Such a facility would allow the return of several surface parking areas to animal exhibition spaces and also increase green space around the central exhibition area of the

Park. The areas freed of present use as car parks are the only flat areas remaining at the Park for exhibit use. The proposed parking garage would include approximately 1,100 spaces compared to the existing 250 spaces on the site contiguous to the present General Services Building. A pedestrian walk and tunnel would be constructed to allow visitors unimpeded access to the central Zoo animal area.

Savannah and Plains Animals - An exhibit of prairie and plains animals will be created on the present site of parking lot "B", located north of the elephant house. The area will be viewed from Olmsted Walk. The Zoo does not presently have exhibits on flat terrain which might simulate the openness of the African savannah. The cost estimate for this project is \$1,650,000.

Renovation and Repairs - In addition to the redevelopment Master Plan, the Zoological Park is responsible for a continuing program of major maintenance and repair of its real property (buildings, grounds, utilities, and equipment). The Zoo has sixty separate structures of which eighteen are major buildings. The current plant value is over \$100 million and \$1,400,000 to \$2,000,000 will be required annually for structural, mechanical, and electrical repairs and renovation of the physical plant to support the Zoo's mission at a satisfactory level.

Conservation and Research Center

Pachyderm Facility - This project will provide a facility to house large hoofed stock for research and breeding. The site chosen is well suited for this purpose and will not be labor intensive with respect to support requirements. The facility will permit the Zoo to pursue actively the breeding programs for such critically endangered groups as rhinoceroses and tapirs. Amounts of \$400,000 for design and \$4,000,000 for construction will be requested in future years.

Water System and Hydrants - Worn and deteriorated water lines throughout the facility must be replaced and hydrants upgraded to meet fire and safety protection standards. This project is estimated to cost \$550,000.

Waterfowl Facility - The proposed waterfowl ponds at the Conservation and Research Center presently estimated to cost \$990,000 will provide outdoor facilities for the study, propagation, and rearing of endangered waterfowl and crane species. At present the Center cannot engage in research and propagation of a variety of species that require year-round flat-water surface; consequently, the planned enclosures will include ponds that will be mechanically frost free or air-injected to prevent freezing in winter. Individual ponds will be enclosed with wire mesh fence and wire mesh ceilings. The location of the proposed complex will be the lowland area below the present hardy bird yard.

Primate Facility - This facility will enable the Center to expand the variety and number of primates accommodated in research programs while providing better protection of animals from communicable diseases to which these species are highly susceptible. The Zoo already has an international reputation for primate breeding programs. The building will be

located in the core area, close to the small animal facility and veterinary hospital. The cost estimate for this facility is \$1,650,000.

Road Improvements/Extensions - This project includes providing access to new facilities with existing roads, and extending paved roads to outlying animal facilities. The work is expected to cost about \$1,100,000.

Renovation and Repairs - The Conservation and Research Center includes eighty-nine facilities of various types, containing approximately 236,000 square feet of space, two and one-half miles of paved roads, twenty miles of jeep trails, thirty miles of fences, and all related utility systems (sewer, water, electricity). This account is used to complete necessary repairs to structural, mechanical, and electrical components of the Center's physical plant, and is expected to cost about \$800,000 per year at the end of this planning period.

Restoration and Renovation

The Restoration and Renovation of Buildings (R&R) account is used to fund building repairs, alterations, and improvements, as well as the construction of additions to existing facilities and minor new facilities. Substantial annual funding is required in order to assure preservation and effective operation of the Institution's buildings; to provide a safe environment for visitors, staff, and collections; and to meet program objectives.

The Institution's buildings and facilities (other than the Zoo) consist of fourteen museums and galleries, including the Quadrangle now under construction, in Washington, D.C. and New York City housing research and collections management activities and a wide range of exhibitions in the fields of science, history, technology, and art. Also included are facilities at Suitland, Maryland, for the preservation and storage of collections, and display of air and spacecraft; centers for biological research, conservation, and education in Panama and on the Chesapeake Bay, in Maryland; an oceanographic research station at Fort Pierce, Florida; a center for astrophysics in Cambridge, Massachusetts and the Whipple Observatory on Mt. Hopkins near Tucson, Arizona; and a number of administrative, storage, reference, distribution, and other supportive facilities primarily in leased space.

Since many of the Restoration and Renovation projects requested each year require one or more years of planning and design before a bid solicitation can be issued, it is necessary to forecast and organize this work several years in advance of seeking appropriations. In the early 1970s, the Institution's annual R&R budget totaled several million dollars and increased in FY 1985 to a level of about \$14,000,000. In the present economic climate the Institution expects little growth in R&R funding beyond that needed for inflationary cost increases associated with construction activities. While funding in the range of \$12,000,000 to \$14,000,000 will continue to meet a wide range of Institution repair and improvement requirements, it is not sufficient to accomplish a number of major projects such as terrace replacements estimated at more than

\$3,000,000 each; heating, ventilation and air conditioning system replacements that range in estimated cost from \$11,000,000 up to \$56,000,000 at the Natural History Museum; and fire detection and suppression improvement throughout the Institution estimated in excess of \$18,000,000.

In the past, the Institution has attempted to phase over several years projects of significant magnitude. While a number of these planned projects will continue to be phased in order to keep buildings and programs in operation, it is not practical or economical to phase these projects over, say, a five to ten year period. Such phasing would increase significantly the estimated cost; require re-bidding each project each year; and be difficult to manage, and extremely complex to affix responsibility and liability upon completion.

The following major projects are planned with the FY 1986 appropriation of \$11,009,000; roof and facade repairs at the Arts and Industries building and skylight repairs at the Freer Gallery building; continued implementation of the fire protection master plans for the Natural History building and the American History building continued removal or encapsulation of asbestos located in several Smithsonian buildings; continued implementation of heating, ventilating and air conditioning and energy conservation improvements in the American History building, implementation of an energy conservation plan at the Natural History building; initiation of installation of a master raceway for communications systems between the Mall museums; renovation of the basement of the Freer Gallery of Art; and the final renovation to various buildings to accommodate the proprietary security system.

The FY 1987 R&R appropriation request of \$12,828,000 continues the Institution's commitment to acquiring and sustaining a level of funding consistent with the size, diversity, and age of Smithsonian facilities and known work requirements. The funding levels for R&R in the period FY 1988-91 are limited by the President's five year budget projections, reflecting yearly growth for inflation. The Institution is currently reviewing specific projects for scheduling future years to meet the most urgent requirements of the physical plant. Categories of project work are described in the following paragraphs.

General Repairs and Improvements. These projects do not lend themselves to discrete categorization, or are minor emergency repairs, such as equipment failures or structural defects that cannot be anticipated and that arise from heavy use, extreme weather conditions, or other circumstances. Examples of projects in this category are interior repairs to floors, ceilings, partitions, doors and building hardware; space renovations which would create additional or more effective space for program activities; renovations of exhibition and other public space; repairs to roads and walkways; elevator and escalator repairs; and lighting improvements.

Facade, Roof and Terrace Repairs. Maintaining the integrity of the exteriors of all Smithsonian buildings is critical to preventing major structural damage and deterioration due to age and weathering, and to ensuring a safe environment for visitors, staff, and collections. Energy conservation also demands weather tight exteriors. Work in this category

includes a variety of major projects, such as roof replacement, repointing and recaulking facades, plaza resurfacing, exterior painting, and window repairs.

Work is continuing on the renovation of the exterior the Arts and Industries building. Completion of the roof replacement, repointing of the masonry facade, extensive window replacement, and replacement of gutters and downspouts is expected in late 1987. Funds of \$8,900,000 appropriated since FY 1981 are being used to continue exterior restoration on a quadrant-by-quadrant basis.

Work is complete on the renovation of the facade of the 120 year old Renwick Gallery building. The Institution received approval from the Commission of Fine Arts and the Joint Committee on Landmarks for the use of precast concrete in lieu of natural stone to assure that the repairs will provide a permanent solution to the problem while maintaining sensitivity to the building's status as a National Historic Landmark. The amount of \$5,950,000 appropriated through FY 1985 has been used to complete this project.

Additional projects for the next few years include replacement of terraces at the Air and Space Museum and the Hirshhorn Museum, facade repairs at the Air and Space Museum, roof repairs at the Renwick Gallery and the Carnegie Mansion, facade repairs and roof replacement at the Natural History Museum, skylight and roof repairs at the Freer Gallery, and facade repairs and window replacement at the Smithsonian Institution building.

Fire Detection and Suppression System. The Institution is continuing to develop and implement plans for upgrading fire protection systems in all buildings in order to provide a level of safety consistent with today's standards and technology. Work in this category includes such items as the installation of heat and smoke detection systems, sprinkler and chemical suppression systems, and fire doors and walls. Improved systems are installed as exhibitions are changed, and fire retardant materials are used wherever possible.

The implementation of comprehensive fire protection master plans is in progress at both the Museum of Natural History and the Museum of American History. Construction includes the installation of upgraded sprinkler systems, new smoke detection systems, fire pumps, generators and control panels, and architectural modifications to create more efficient fire zones. Fire protection projects planned for the next five years include the installation of fire zones and additional sprinklers in the Smithsonian Institution building and the American Art and Portrait Gallery building. In addition, a fire protection master plan will be developed and implemented for the Air and Space Museum, and the master plan for the Arts and Industries Building will be revised to reflect changes in space use.

Access for the Disabled, Safety and Security, and Correction of Hazardous Conditions. Substantial progress has been achieved in eliminating architectural barriers at Smithsonian buildings. Several Smithsonian facilities still require additional modifications to meet

recently updated standards for disabled person access. These projects are scheduled to be accomplished during this planning period.

The elimination of exposed asbestos insulation located in several buildings continues to be a high priority. An amount of \$500,000 was received in FY 1986 for this purpose, and funding will continue to be required for the correction of this problem between FY 1987 and FY 1991.

Other projects in this category include replacement of tile in the Great Hall of the American Art and Portrait Gallery building; entrance modifications at the Natural History Museum; entrance grate and emergency door replacement at the Air and Space Museum; modification for disabled access at the American History building; installation of an elevator and freight lift at the Anacostia Neighborhood Museum; and security lighting on the Mall.

Utility Systems Repairs and Improvements. Upgrading the heating, ventilating and air conditioning (HVAC) equipment and controls in Smithsonian facilities will contribute, more than any other factor, to the reduction of energy consumption. The HVAC systems in most buildings were designed with neither the goals of current energy standards nor the advantages of technologies that are now available. Major improvements are required, as well as minor maintenance and repairs, to achieve energy efficiency, to ensure reliability of existing systems, and to maintain environmental conditions necessary for the protection of the collection. Equipment requiring upgrading or replacement includes such items as air handlers, chillers, pumps, coils, fans, compressors, cooling towers, electronic controls, and exhaust and filtration systems. This category of work also includes associated electrical and plumbing repairs and improvements and communications requirements.

Based on the results of study and design efforts, major HVAC renovation projects and energy conservation improvements are planned for the next five years at the Natural History, American History, Arts and Industries, and American Art and Portrait Gallery buildings. Energy conservation improvements also will be made at the Hirshhorn, the Renwick Gallery, the Cooper-Hewitt Museum, and the Air and Space Museum. A utility system study and energy audit will be conducted and implemented at the Smithsonian building.

In response to the increasing need for automation of Smithsonian offices and for access to data base management systems, as well as projected uses in the near future of additional computer and electronic services for research, collections management, education, and exhibition purposes, the Institution has developed a plan to interconnect the systems through a common communications pathway or master raceway system. Installation of such an interconnecting system will significantly reduce the costs of independently connecting individual systems as they are needed for various purposes, and will also provide a higher degree of interaction among the different kinds of systems, including data and word processing, sensing systems for energy management, an expanded telephone system, telexes and facsimile machines, and video systems for exhibits and educational purposes. The Institution received \$250,000 in FY 1986 and is requesting \$160,000 in FY 1987 to begin installing a raceway system within

and between eight buildings in the Mall area which will accommodate electronic requirements anticipated over the next ten years. Additional amounts are expected to be sought through FY 1991 in order to extend the raceway into each of the eight buildings and to each work station, office or exhibit area.

A July 1985 regulation issued by the Environmental Protection Agency requires replacement of all high-voltage electrical transformers containing cancer causing chemicals known as PCBs by the year 1990. The Institution has fifty-nine of these transformers in various buildings and is currently evaluating each transformer to determine the most cost-effective method of complying with this requirement. An estimated amount of \$3,550,000 will be needed to complete this project.

Other Projects: Included in this category are space modifications and renovations to accommodate changing program requirements, sometimes in conjunction with major roof and HVAC projects or other construction activities that offer improved office and collections storage space conditions. Renovations are projected during the planning period at the Museum of American History, the Museum of Natural History, Arts and Industries and Smithsonian buildings, to take advantage of additional space available for program use by reduction of space needed for utility and mechanical systems and the expansion of program activities into new facilities such as the Museum Support Center and the Quadrangle. Also included in this category are projects at Suitland to modify metal storage buildings for collections management purposes; construction of a dormitory at the Whipple Observatory, and dormitory and dining facilities at the Tropical Research Institute in Panama. Advanced planning funds will also be requested to enable the Smithsonian to prepare better cost estimates for future projects and to reduce the effects of inflation on construction costs by providing design capability prior to receipt of project appropriations.

BEYOND FY 1991

There is merit to looking further ahead than just five years in communicating to OMB, Congress, and others the Institution's operating and capital objectives and in contemplating resource levels to match these. The Smithsonian must look ahead ten to fifteen years if it is to continue to be successful in meeting its responsibilities to the public, the museum and scholarly communities, and the nation. This chapter presents a brief summary of longer-range possibilities based on institutional aspirations for programs and facilities to about FY 2000.

Basic activities in exhibition, collections management, and other programs, of course, will continue. Research programs will continue to be emphasized as will quality services for the visiting public and Associate members. New buildings, where necessary, and careful attention to those now under the care of the Institution, require longer-range thinking if results are to be useful to the public. The most effective use of available federal and trust resources in achieving general objectives will continue to motivate overall management planning. As the planning period is extended, however, it becomes increasingly difficult to detail the varied opportunities and related management choices which will emerge. Nevertheless, it is possible to set down institutional desires, directions, and resources which can be realized if conditions external to direct management control permit. In interpreting materials contained in this chapter, it is important to highlight the following.

- . A generally favorable economic situation is assumed to prevail over time. The Administration is predicting that inflationary pressures on the nation's economy will continue at relatively low rates. For purposes of describing institutional plans beyond 1991, inflation is assumed to have only minimal influence.
- . Levels of appropriations for capital and operating projects as outlined in the preceding chapters for years FY 1987-1991 are minimal and contain virtually no program or facility growth over the period; it is assumed for the longer-run that resources will be forthcoming from the Executive and Legislative branches of government which will allow the Institution to achieve its basic program requirements.
- . Visitation will remain strong.
- . Public acceptance of the Institution's various programs and products, and supporting trust funds generated through investments, Associates and auxiliary activities will continue to allow net proceeds to grow moderately and to be applied to Smithsonian objectives as approved by its Board of Regents.

- . Future transfers to the Institution of historic buildings that might be preserved for Smithsonian use are possible, but the timing is not known. Likewise, it is not possible to speculate on the availability of major new gift collections that might require special housing for display or other purposes.

Given these general assumptions, Smithsonian management predicts continued success through the turn of the century in developing resources to serve the public and the nation through its varied programs.

Program Expectations

With regard to longer-run developments, the Institution's activities have always spanned national and international interests, but in future years its multinational character should begin to flourish in an even greater fashion.

The construction of the Quadrangle, planned for opening in 1987, is basically an effort to provide the Institution with appropriate and sufficient space to display its history collections of Near and Far Eastern and African cultures, and to strengthen its ties with Latin America. The roots of these cultures run deep, and the contributions to man's development from these areas have been and will continue to be pervasive forces in the world. The Quadrangle and its programs will promote the long-run causes of international research, peace and understanding. While the content of the Institution's longer-range exhibition programs, as in the past, will focus on historical events important to the development of the nation, of Man and his culture, and be based on the latest findings and interpretations of the international community of historians and scientific investigators, in general, exhibitions can be expected over time to take on more of an international flavor, reflecting the interdependence of nations in pursuing essentially common cultural and humanistic goals in a world of finite natural resources.

The Institution expects to apply increasing emphasis to its research programs, including both collections based and non-collections based areas. The Institution will build on its considerable expertise such as basic taxonomy and systematics, monitoring the effects of long-term environmental change, examining the basic components of matter, studying the universe, and expanding knowledge of animal behavior. Research endeavors expected to be more thoroughly cultivated and developed include archaeometry, species conservation and propagation, studies of biological diversity, and man-related disciplines. Emphasis also will be placed on biological and systematics research to understand the basic properties of nature. The rapid development of new techniques and fabrication of new instruments in the field of astrophysics now opens the possibility of constructing telescopes to see in regions previously limited by technology. The Astrophysical Observatory is particularly interested in submillimeter wave lengths, perhaps the "last frontier" for ground based astronomical observations, and in future years will be adding to the store of astronomical knowledge in this area. The results of Institutional planning efforts, stemming from the period FY 1987-FY 1991 and including seminars, lectures, conferences, special research projects, and

exhibitions, will be coming to fruition as related to the commemorations surrounding the Columbus Quincentenary.

Attention to basic aspects of managing collections will continue. The Smithsonian will always have major responsibilities directed to the preservation and care of collections. Objects made by man, or collected - from nature, are the tangible products of our historically persistent struggles to comprehend and live with the environment, extend our mastery over it, improve our condition, and express our spiritual aspirations. The collection, interpretation, preservation, and transmission of knowledge related to natural collections and important objects is essential if this and future generations of people are to measure and understand the character of international cultural and natural change. The programs housed at the Museum Support Center building will be fully operational by the mid-1990s. The facility and its programs were fundamentally conceived nearly two decades ago to provide space, laboratories, training areas, and equipment, all designed for the efficient storage, study, care and preservation of collections. In a visible fashion in future years, the Center and its operations represent the Institution's commitment to apply the most advanced research, conservation and preservation techniques known to minimize the unavoidable toll of time on the products and discoveries of Man, and to allow them to be passed on as a resource for future research and exhibition.

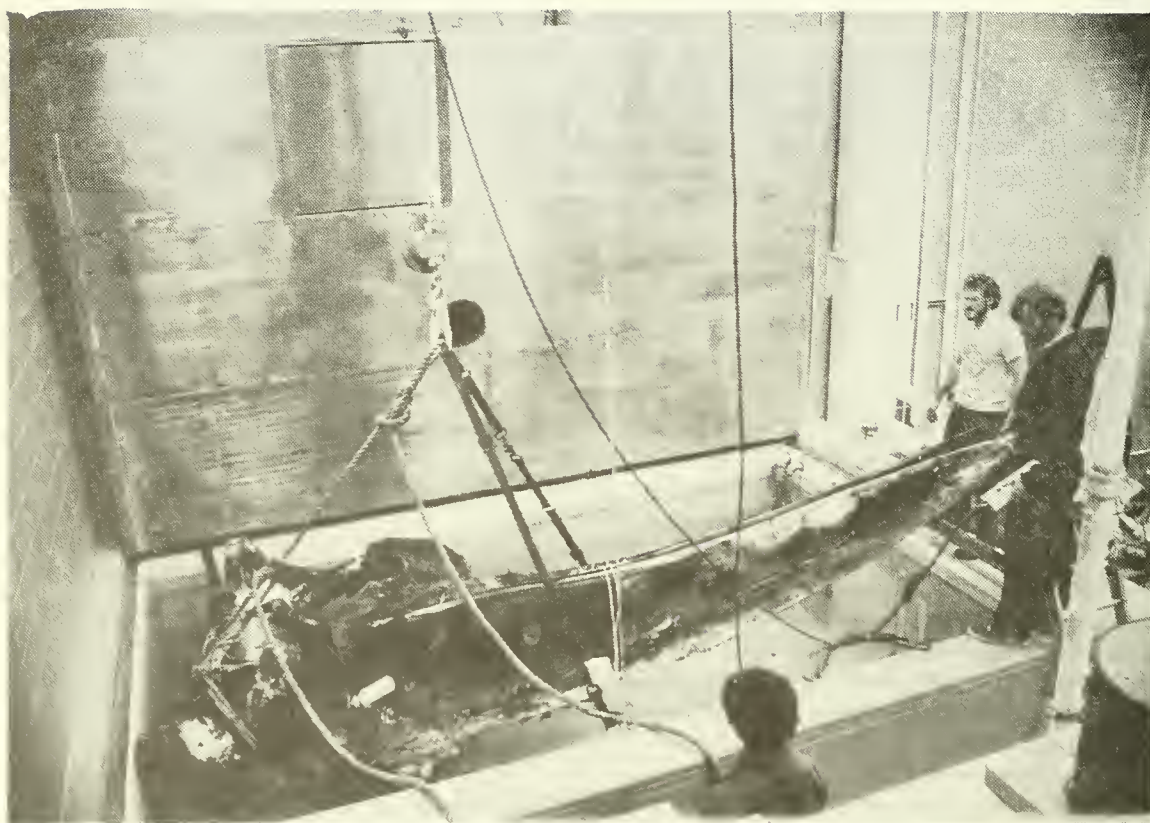
Educational programs and services to the public, including classes, teaching materials, publications and other media activities, are expected to grow in number and variety. They will be produced and presented in a style and format which will be in keeping with the changes that will take place in the nation's classrooms, and in television and communications technologies.

Operational Funding

With regard to federal funding growth associated with operations, the Smithsonian expects to keep abreast of inflation; obtain the necessary resources to implement its programs being planned for the Quadrangle and Support Center; become involved in new research activities as described earlier; experience some moderate increases for collections care, exhibitions, education, and other program opportunities as they arise; and extend its influence as a facilitator of new ideas and concepts in national and international scholarly communities.

Levels of S&E operating resources through FY 1991 are projected in earlier chapters as approximating \$234,000,000 ^{1/}. Using a three to four percent annual growth figure to cover inflationary cost increases and continuing to project no growth in programs for the period FY 1992-2000, the Institution would be operating at an appropriation level approaching \$315,000,000 in FY 2000. This figure is conservative, and a realistic indication of what could happen.

^{1/} Projected level of S&E resources including future year legislated pay increases.



Recent acquisition of a 17-foot-long whale skull provided the perfect opportunity to try this new whale-rendering vat at the Museum Support Center. Photo by Charley Potter.

As in federal operations, the basic approach regarding long-range trust prospects is a conservative one. Sustained moderate growth in the Institution's endowment is a high priority now and will continue to be throughout the foreseeable future. During FY 1975-1985, pursuant to the Board of Regents' policy of increasing the Institution's endowments, the market value of endowments in restricted and unrestricted areas grew from around \$42,000,000 to about \$150,000,000 as a result both of gifts and transfers to these funds, as well as sound investment. Assuming a comparable economic climate and sound investment choices, that performance should continue. It is planned that a prudent portion of the Institution's net revenues will continue to be added to the unrestricted endowment and that gifts for restricted purposes will also continue.

Overall, by the turn of the century, if trust revenues are sufficient to offset the effects of inflation, the Institution hopes to be able to increase its net earnings from auxiliary and business-related activities to about \$40,000,000. The pattern of applying unrestricted net funds throughout future years to institutional operations is expected to be much the same as now: to enhance endowments; to fund Board of Regents' approved programs in research, fellowship, exhibition, and education areas; to enhance program activities with the museums and bureaus; and to support central institutional administrative requirements.

Grants and Contracts

Grants and contracts from the federal government have been a significant source of funds for Smithsonian contributions to scientific and cultural advances almost since the Institution's establishment. Government interest in support of the national basic research enterprise is expected to continue, and to nourish, through the grant and contract mechanisms, quality investigations into selected areas. The Institution has distinguished itself in various research disciplines, and intends to continue to do so over the long run, partially through sustained grant and contract work received from the federal government, as well as its other sources of funding.

Buildings and Facilities

At the end of FY 1985, the Smithsonian occupied approximately 4,500,000 square feet of building space, owned or leased, for all purposes in facilities located in Washington and elsewhere. By FY 1991, with the occupation of the planned Quadrangle facility, the completion of planned facility work for the Zoological Park in Rock Creek and the Tropical Research Institute in Panama, space occupied by the Institution will approximate 5,000,000 square feet. By FY 2000, if the Institution is successful in planning and accommodating its major space objectives, space available might approach 7,000,000 square feet. Implicit in the projections beyond FY 1991 are the following general institutional objectives:

- . Funding for added facilities for science programs at the Zoo, Tropical Research Institute, Astrophysical Observatory, and Air and Space Museum, will be forthcoming; development funding for Cooper-Hewitt facilities will be obtained; and the restoration of the General Post Office Building will be allowed to proceed.

- . Consolidation of program, administrative, and support operations into Smithsonian-owned facilities on properties controlled by the Institution or the federal government, and minimum reliance on leased or rented locations.
- . Continued phased development of the Suitland and Front Royal properties for controlled warehousing, preservation, conservation, and study of the collections and propagation of endangered species.
- . Acquisition of facilities convenient to the Mall to accommodate some museum activities, administrative office activities, and light industrial-type operations for technical and administrative support of museum operations.

The Suitland location seems ideal for fulfilling many of the Institution's consolidation and collection management objectives. The building recently opened at Suitland permits the Institution to meet many collections storage needs primarily in the natural history area, and to establish training and other conservation program space. A subsequent phase of development at Suitland would alleviate emerging collection storage pressures in the other bureaus. After 1991, as currently envisioned, the next development steps for the Suitland properties include an additional pod for the current building, a storage and laboratory building for the history and art functions, and a central facility for the libraries.

Zoological Park. Further development of the National Zoo beyond 1991 is dependent on future economic conditions. In this context, future year exhibitions and visitor services will be reevaluated to determine the most cost effective means to service the Zoo visitor and yet preserve the natural and historical character of the Park. The development plan for the Conservation and Research Center at Front Royal is being reviewed.

Other Science Facilities. Additional development of science facilities for the future will include improved research space for the Smithsonian Environmental Research Center at the Edgewater, Maryland site on Chesapeake Bay. The site includes about 2,600 acres of significant shoreline property on the Rhode River estuary, and marshes, forest, and former agricultural areas. Present facilities at the Edgewater site include a renovated dairy barn with a new laboratory wing addition, an education and dormitory building, and miscellaneous small buildings which provide for storage and vehicle and boat maintenance, and several trailers. An early assessment of need suggests that a modern laboratory building, scientifically equipped greenhouses and a wet laboratory with fresh and salt water tanks would be needed as well as extensive access and utility improvements. It is contemplated that the funds associated with the Rockville activities will be redirected to higher priority biological research possibly in association with a university in a cooperative agreement. Efforts have recently begun for a master facility plan for the Museum of Natural History. The results of this process will have implications for future modernization and improvements necessary to maintain activities.

There also is the long-term need for storage and preservation facilities for large air and space craft. The museum visitor of the next century will be as interested in the Space Shuttle as the scholar or visitor of 1985 is in the Kitty Hawk flyer. As detailed in the Facilities Planning Chapter, design and construction of hanger-like buildings at Washington Dulles International Airport are currently envisioned and could span the years to the end of the century.

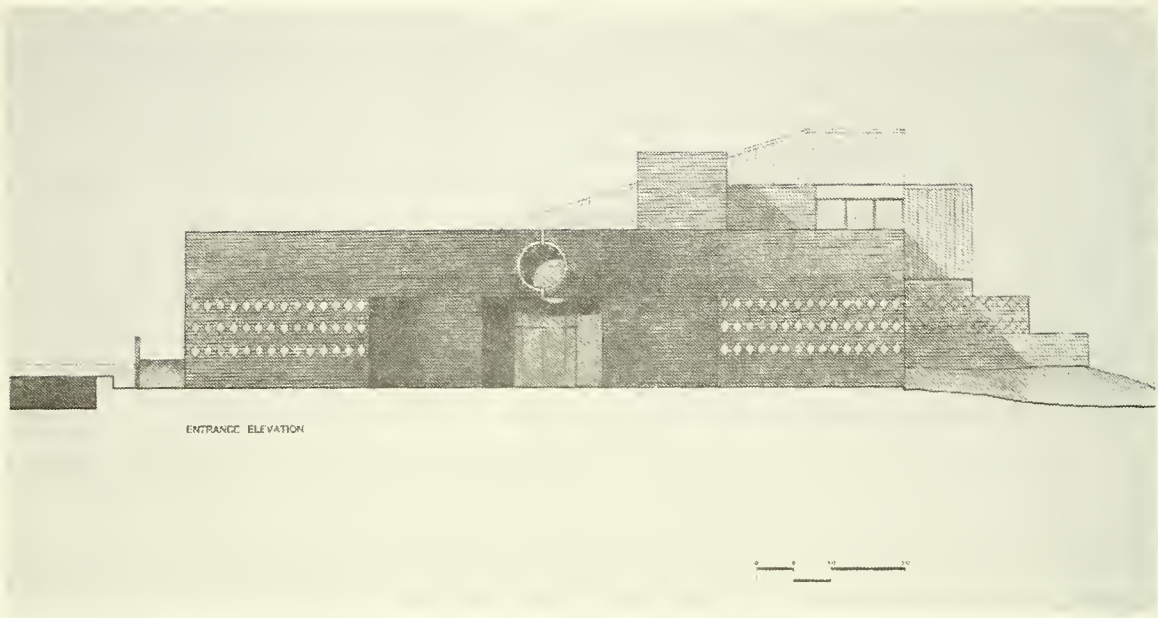
Astrophysical Observatory. The Multiple Mirror Telescope, atop Mt. Hopkins at the Fred Lawrence Whipple Observatory, will require renovation to prevent obsolescence. For this powerful instrument to remain at the forefront of optical astronomy, the replacement of its present mirrors by a large 6.5 meter diameter reflector in now is the planning stage.

Anacostia Neighborhood Museum. Presently, the Museum's administrative staff and exhibition space are located in a leased building that is unsuitable for long-term occupancy. An annex building is being constructed over FY 1985-86 on federal land in Anacostia adjacent to the present Exhibits Lab building at Fort Stanton Park. Completion of this structure should allow the Institution to vacate the leased property. At some point beyond FY 1991, consideration may be given to new and modern museum building.

Administrative Office Building. The Institution now is reassessing its use of all Mall and leased space, including the effects on this space resulting from occupancy of the Museum Support Center and anticipated completion of the Quadrangle project. In expectation that some leased space will continue to be required, the Institution needs to consider purchase or construction of office space near the Mall in order to reduce the longer term budget effects of continued rental escalation. In 1972, space at L'Enfant Plaza cost about \$8.50 per square foot; it now costs about \$25 per foot. Assuming that a purchase or construction cost could be amortized over a 10 to 20 year period at yearly expense not exceeding current annual rental costs, then, these rental funds could eventually be put to other program purposes.

Administrative Service Center. The present concept of an in-town Smithsonian Service Center was developed in 1975 when a number of Institution support activities located at various leased buildings in Washington were consolidated in a single leased location at 1111 North Capitol Street to provide efficient support to museums and other bureaus located principally on the Mall. In selecting the present Service Center location, proximity to the Mall was a key factor inasmuch as the movement of personnel and museum-related objects between the Service Center and the Mall occurs at a relatively high frequency.

Support activities included in the Service Center can be characterized as being of the light industrial type. A major activity is Exhibits Central where museum exhibits are developed and constructed from basic materials such as lumber, plastic, paper, etc. Exhibits Central facilities include drafting, model construction, shops for woodworking, plastics, silk screening, painting, fabrics and welding.



Artist's renderings of the new facility for the Anacostia Neighborhood Museum. Above: The entrance elevation; below: aerial view of the site plan showing the new location on Fort Street. The annex is scheduled for completion in April 1986. Photos by Chris Capilongo.



Other Service Center activities include the assembly, processing, packing, crating, and shipment of outgoing exhibits for the SI Traveling Exhibition Service (SITES); the receipt, storage and issue point for general office and museum and building operation and maintenance supplies and equipment; a printing and duplicating plant, the distribution center for the Smithsonian Press, and limited holding areas for museum objects from several of the museums.

With development of a Service Center concept, the Institution leased the facility at 1111 North Capitol Street. The current lease expires in the fall of 1992. During the term of the lease, the building was sold to a development firm. In discussions with principals of the firm, it has been made clear to Institution representatives that the objectives of the current owners include redevelopment of the property to a higher and better use. The neighborhood is currently in a transition stage, moving from light industrial use to office building or comparable use. Quality office buildings have been constructed on North Capitol Street several blocks south of the 1100 block, with substantial indication that this growth will continue to the north in a relatively short period of time.

Smithsonian plans call for constructing a replacement building for those activities now at 1111 North Capitol Street together with those other central support activities now on the Mall which are expected to outgrow their present space or whose space may be required for museum programs. Presently, it is estimated that a Service Center of 250,000 gross square feet will be required at an estimated cost of \$30,200,000 for site acquisition, and design and construction.

Mall Site. The property bounded by Third Street, Maryland Avenue, Fourth Street, and Jefferson Drive has been reserved by Congress for the future public use of the Smithsonian (P.L. 94-74, approved August 8, 1975). There are currently no plans for development of this site, but the Institution will continue to consider potential use of the land for establishing a last major Smithsonian Mall museum. In the meantime, it is expected that the site will continue to be used for temporary exhibitions and other purposes by federal and other organizations.

Maintenance and Improvements of Buildings. The Institution currently occupies many older buildings of cultural and historical importance to the nation, such as the headquarters Castle Building, the Arts and Industries Building, the Old Patent Office Building, the original Corcoran Art Building, and the Barney Studio House. As time passes, these buildings will continue to require added resources to assure their preservation and continued usefulness to the public and the Institution. In addition, many buildings of more recent construction will begin to require more attention.

At the present time, the Institution is devoting about \$11,000,000 to \$15,000,000 of federal funds annually to the renovation and restoration of its buildings, exclusive of utilities, custodial care, and basic maintenance provided through the operational budget. This amount is not adequate to address the major renovation needs required to upgrade building systems and provide for normal yearly care. The Institution foresees a need to increase its renovation and restoration efforts to

about \$36,000,000 per year eventually. Management will make periodic assessments of the adequacy of renovation and restoration levels of funding and, within the framework of available funds continue with projects at various locations, but press for additional resources to take care of major renovation requirements. Beyond FY 1991, renovation, restoration, and modifications to existing space and systems in Mall and other buildings for exhibitions, research programs, access by the handicapped, fire, safety and health programs, energy conservation and the general preservation of historic facilities will continue to be among the highest priorities of the Smithsonian.

If improvements and additions to the Institution's physical plant occur, there will, of course, be related operating costs for necessary personnel, utilities, equipment and other items, to be funded largely through the federal appropriations process. While some operating and equipping needs have been estimated through FY 1991 for the Quadrangle, and facilities associated with the Zoological Park and the Tropical Research Institute, it is too early to speculate about similar resources related to longer-range building possibilities. This will be done, however, as plans become firmer and as the time horizon shortens to the three-to-five-year period usually associated with legislative, appropriation, and construction cycles for physical plant additions.

As refinements are made to the Institution's long-range construction and operational aspirations, Congress, the Executive Branch, and other constituents will be kept fully informed through many means of communication, including the Prospectus.

TABLE 3

QUADRANGLE:
ESTIMATED RESOURCES
ASSOCIATED WITH PROGRAM
AND SUPPORT OPERATIONS¹

(\$000)

<u>Activities</u>	<u>FY 1987</u>	<u>FY 1988</u>	<u>FY 1989</u>	<u>FY 1990</u>	<u>FY 1991</u>
Program Operations ²					
Federal	\$ 7,822	\$ 8,668	\$ 9,234	\$ 9,459	\$ 9,459
Trust	24,726	25,808	25,335	25,598	26,437
Support Operations ³					
Federal	3,118	3,401	3,417	3,440	3,440
Trust	-	-	-	-	-
Utilities	687	819	860	903	948
Totals					
Federal	\$11,627	\$12,888	\$13,511	\$13,802	\$13,847
Trust	\$25,455	\$25,808	\$25,335	\$25,598	\$26,437
	\$37,082	\$38,696	\$38,846	\$39,400	\$40,284

¹This table is meant to provide an overview of operational resources associated with those program units that will be occupying the Quadrangle, plus building and ground maintenance, utilities, some support for central offices, and trust operations. Not included are Freer Gallery of Art operations since base funds are not directed to Quadrangle activities.

²Program operations include the Museum of African Art, the Sackler Gallery (part of the Center for Asian Art, along with Freer Gallery) National and Resident Associate Programs, the Directorate of International Activities, and the Traveling Exhibition Service.

³Support operations, for purposes of this table, include costs for protection and security, building and grounds maintenance, libraries requirements, exhibits central, accounting, personnel administration, and plant operations.

⁴Additional resources for operations and support will be raised from trust funds and donors to augment programs and selected activities in dollar amounts that cannot be estimated at this time.

TABLE 4 '

FY 1986 EFFECTS OF
BALANCED BUDGET AND EMERGENCY DEFICIT CONTROL ACT
PUBLIC LAW 99-177
ON SMITHSONIAN APPROPRIATIONS
(\$000)

<u>Salaries and Expenses</u>	<u>FY 1986 Base</u> ^{1/}	<u>Excluding PL 99-177</u>
<u>SCIENCE</u>		
Museum of Natural History	\$ 21,104	\$ 20,268
Astrophysical Observatory	8,696	8,349
Tropical Research Institute	3,798	3,643
Environmental Research Center	3,528	3,383
Air and Space Museum	8,515	8,171
Zoological Park	11,519	11,043
Office of the Assistant Secretary	488	564
Subtotal	\$ 57,648	\$ 55,421
<u>HISTORY AND ART</u>		
Museum of American History	\$ 11,912	\$ 11,342
Museum of American Art	4,793	4,600
Portrait Gallery	3,591	3,446
Hirshhorn Museum and Sculpture Garden	3,112	2,985
Center for Asian Art	3,074	2,946
Archives of American Art	894	858
Cooper-Hewitt Museum	942	903
Museum of African Art	2,623	2,513
Anacostia Neighborhood Museum	888	852
Office of the Assistant Secretary	364	424
Subtotal	\$ 32,193	\$ 30,869
<u>PUBLIC SERVICE</u>		
Office of Telecommunication	\$ 219	\$ 211
Visitors Information & Reception Center	163	156
Office of Public Affairs	599	576
Smithsonian Institution Press	1,121	1,078
Office of the Assistant Secretary	223	247
Subtotal	\$ 2,325	\$ 2,268

TABLE 4 (cont'd)

<u>Salaries and Expenses</u>	<u>FY 1986 Base</u> ^{1/}	<u>Excluding PL 99-177</u>
<u>MUSEUM PROGRAMS</u>		
Office of Museum Program	\$ 367	\$ 352
Office of the Registrar	99	95
Conservation Analytical Laboratory	2,019	1,945
Smithsonian Institution Libraries	4,664	4,455
Office of Exhibits Central	1,603	1,543
Traveling Exhibition Service	407	363
Smithsonian Archives	539	518
National Museum Act	772	739
Office of the Assistant Secretary	361	351
Subtotal	\$ 10,831	\$ 10,361
<u>DIRECTORATE FOR INTERNATIONAL ACTIVITIES</u>	\$ 527	\$ 441
<u>SPECIAL PROGRAMS</u>		
American Studies and Folklife Program	\$ 711	\$ 681
Office of Fellowships and Grants	273	326
Office of Symposia and Seminars	99	96
Office of Elementary and Secondary Education	329	316
International Environmental Science Program	728	697
Collection Management/Inventory Program	1,121	1,073
Museum Support Center	4,891	4,680
John F. Kennedy Center Grants	348	333
Subtotal	\$ 8,500	\$ 8,202
<u>ADMINISTRATION</u>	\$ 12,411	\$ 11,435
<u>FACILITIES SERVICES</u>	\$ 52,560	\$ 50,387
TOTAL - SALARIES AND EXPENSES	<u>\$176,995</u>	<u>\$169,384</u>
Special Foreign Currency Program	2,485	2,378
Construction and Improvement, NZP	5,518	5,281
Restoration and Renovation of Buildings	11,009	10,536
Construction	3,976	3,805
TOTAL - SMITHSONIAN	<u>\$199,883</u>	<u>\$191,384</u>

^{1/} FY 1986 base figures incorporate reorganizations and reprogrammings, and Office of Management Budget grade target reduction.

APPENDIX I

APPLICATION OF SMITHSONIAN OPERATING
RESOURCES FY 1985 AND PROJECTED THROUGH
FY 1991 BY ORGANIZATION

NOTE: Federal salaries and expenses shown for FY 1987 are those contained in the budget request to Congress. The federal salary and expenses projections beyond FY 1987 in the following tables contain added resources for Quadrangle operations for appropriate units involved in the establishment of the International Center, exhibitions, education, collections related, and support activities. They also contain phased equipment, move, and operating needs of the Museum Support Center. Federal figures for FY 1988-91 are based on the President's budget planning figures maintained by the Office of Management and Budget, which (with the exceptions noted above) project no additional program growth for the Institution. FY 1985 reflects recorded end of year expenditures; FY 1986 are allocations after allowing for reorganizations, reprogrammings, and grade target reductions. They do not contain the impact of the Balanced Budget and Emergency deficit Control Act of FY 1985 (4.3 percent of FY 1986 Congressional Appropriations); see Table 4 for this distribution. Costs associated with potential Restoration and Renovation projects or new facilities construction are not incorporated.

In a similar fashion, trust expenditure projections cover only operational activities.

SCIENCE

Assistant Secretary for Science. Administration of Science programs rests with this Office; guidance, planning, and overall policy direction for scientific research efforts and science related education and exhibition activities are provided through the Assistant Secretary.

Museum of Natural History (NMNH). In response to the growing concern about the global loss of biological diversity, the NMNH over the planning period will undertake a number of important new initiatives. In part, these initiatives will bolster efforts at correcting an alarming decline in the conduct of systematics, a fundamental field upon which more advanced ecological/evolutionary studies must rest. Several new programs are planned in the study of the biological diversity of tropical Latin America and Afro-Asia, the archeology and anthropology of the native peoples of the Arctic, and the effects of early migratory man's historical disturbances on island ecosystems in the Caribbean, the oceanic Pacific and the insular regions of southeast Asia. Some of the work on biological diversity will be done in collaboration with the international Man and Biosphere Program. The Museum also expects to participate in planning of a national project (with multiagency support and in collaboration with universities and natural history museums) to survey and inventory the biotic resources of the U.S. The project will better assess U.S. plants and animals and their potential utility to man. Museum scientists will also be working with the Interagency Arctic Research Policy Committee to develop an interagency research program for the Arctic. A special effort will be made to make more information available about American Indians to both the research community and to the public through increased accessibility and display of collections and other activities. NMNH will continue its inventory, transport and conservation of research collections to be housed at the Museum Support Center. For facilities, efforts will continue to upgrade the educational, exhibits and public service functions of NMNH. Tight budgets will limit progress in all operational and facilities areas. New research initiatives and the pace of equipment replacement may have to be curtailed or postponed. Vital exhibit modernization also necessarily will proceed slowly at best.

Astrophysical Observatory (SAO). The major instrumental theme for research during the planning period will be based on increased resolution both spatially, via interferometry, and spectrally, in all accessible wavelength bands. A submillimeter interferometry instrument is being planned. Development of detectors at wavelengths from x-ray through submillimeter will be pursued. Improvements are also scheduled for the telescopes at the Fred L. Whipple Observatory and for the facilities there. The mirrors of the Multiple Mirror Telescope atop the Whipple Observatory will be replaced by a large 6.5 meter diameter reflector in order to allow this unique instrument to remain at the forefront of research in optical astronomy; further, SAO intends to replace its inadequate base camp in the future with a new facility. A program of replacement and improvement of laboratory and computer equipment will continue over the period. The Observatory will be helping to improve the teaching of science and mathematics to precollege students by developing educational materials to engage student interest, by taking advantage of the apparent universal attraction of the young to astronomy. SAO also will address and attempt to correct the serious shortage of support personnel that is hampering scientific productivity.

SMITHSONIAN INSTITUTION
APPLICATION OF OPERATING FUNDS
FY 1985 AND PROJECTED THROUGH 1991

TABLE 5 (1)

	FY 1985		FY 1986		FY 1987		FY 1988		FY 1989		FY 1990		FY 1991	
	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)
SCIENCE														
ASSISTANT SECRETARY FOR SCIENCE														
FEDERAL SALARY & EXPENSES	9	516	11	488	11	497	11	497	11	497	11	497	11	497
UNRESTRICTED GENERAL														
-PROGRAM & ADMINISTRATIVE	1	97	1	100	1	101	1	102	1	102	1	103	1	103
-AUXILIARY ACTIVITY	0	0	0	0	0	0	0	0	0	0	0	0	0	0
UNRESTRICTED SPECIAL PURPOSE														
-BUREAU ACTIVITY	0	15	0	0	0	0	0	0	0	0	0	0	0	0
-ALL OTHER	0	47	0	1	0	1	0	1	0	1	0	1	0	1
RESTRICTED	0	228	0	158	2	653	2	626	0	626	0	626	0	626
FEDERAL GRANTS & CONTRACTS	3	283	17	675	17	1128	17	1135	17	1142	17	1149	17	1156
-SUBTOTAL	13	1186	29	1422	31	2380	31	2361	29	2368	29	2376	29	2383
MUSEUM OF NATURAL HISTORY/MUSEUM OF MAN														
FEDERAL SALARY & EXPENSES	505	20194	510	21104	510	21888	510	21888	510	21888	510	21888	510	21888
UNRESTRICTED GENERAL														
-PROGRAM & ADMINISTRATIVE	0	65	0	10	0	10	0	10	0	10	0	10	0	10
-AUXILIARY ACTIVITY	0	0	0	0	0	0	0	0	0	0	0	0	0	0
UNRESTRICTED SPECIAL PURPOSE														
-BUREAU ACTIVITY	0	0	0	1	0	2	0	1	0	1	0	1	0	1
-ALL OTHER	0	1791	0	225	0	229	0	225	0	192	0	227	0	218
RESTRICTED	7	1691	7	1690	7	3623	6	2060	6	3135	6	2180	6	1558
FEDERAL GRANTS & CONTRACTS	36	1949	37	1754	36	1546	35	1260	35	1285	35	1310	35	1340
-SUBTOTAL	548	25690	554	24784	553	27298	551	25444	551	26511	551	25616	551	25015
ASTROPHYSICAL OBSERVATORY														
FEDERAL SALARY & EXPENSES	98	8446	97	8696	97	9291	97	9291	97	9291	97	9291	97	9291
UNRESTRICTED GENERAL														
-PROGRAM & ADMINISTRATIVE	43	2310	43	2377	43	2467	43	2637	43	2817	43	2997	43	3137
-AUXILIARY ACTIVITY	0	0	0	0	0	0	0	0	0	0	0	0	0	0
UNRESTRICTED SPECIAL PURPOSE														
-BUREAU ACTIVITY	33	1171	2	150	2	150	2	150	2	150	2	150	2	150
-ALL OTHER	0	547	0	388	0	444	0	470	0	545	0	595	0	645
RESTRICTED	1	268	1	279	1	194	0	120	0	120	0	120	0	120
FEDERAL GRANTS & CONTRACTS	104	12598	102	12058	96	12147	110	18215	110	18800	103	16150	86	10810
-SUBTOTAL	279	25340	245	23948	239	24693	252	30883	252	31723	245	29303	228	24153

Tropical Research Institute (STRI). During the planning period STRI anticipates strengthening its position as the principal center for studies in tropical biology, in the areas of biochemical evolution, aquatic biology, marine plankton and soil ecology. Educational and conservation activities will continue focusing on the unique features of the Barro Colorado Island Nature Monument. In addition, STRI will continue to make its resources available to organizations of the host country and other institutions to assist in programs of nature conservation and development. An important corollary of this work is the training of third-world students in tropical biology. To effectively support existing programs and to take advantage of unexpected opportunities, facilities modernization involving principal STRI sites, Naos, Galeta, Tivoli and Barro Colorado Island are planned. Construction of the new laboratory/conference center is scheduled for completion in late FY 1988.

Environmental Research Center (SERC). During the planning period, renewed efforts will be made to redefine the goals of the center's two subelements, Rockville, Maryland and Edgewater, Maryland. A new research mission for Rockville operations will depend in part on the resolution of a permanent home for this research group, now housed in a leased laboratory. The Edgewater staff located at a Smithsonian-owned 2600 acre site will continue to emphasize research that addresses physical, chemical, and biological interactions in the environment. Educational activities will remain stable during the period.

Air and Space Museum (NASM). During the planning period, the Museum anticipates a continuing process of strengthening research programs in the history and technology of aviation and space flight, as well as remote sensing, and atmospheric and planetary geologic applications. NASM has expanded its contacts with the research and university communities and provided a basis for increased museum-university interaction with the addition of a department for university programs and publication of an annual research report. An important adjunct to the research activities which will also benefit collection management, exhibition and public programs, is the acceleration of the videodisc and digital recording efforts. This will enhance the utility of the collections, as well as allow for rapid accessioning of newly-collected materials. Publications and education programs will continue to be stressed, especially at the higher education level. The new IMAX film, "The Dream is Alive," premiered in June 1985, and is the first motion picture filmed in space. A second IMAX film, in production, "On The Wing," opens in 1986, and is a lyrical depiction of the analogies of natural and mechanical flight. Restaurant facilities are being planned and may be completed during the period. Planning will continue during this five-year period for a new facility on land at Washington Dulles International Airport.

SMITHSONIAN INSTITUTION
APPLICATION OF OPERATING FUNDS
FY 1985 AND PROJECTED THROUGH 1991

TABLE 5 (2)

SCIENCE	FY 1985		FY 1986		FY 1987		FY 1988		FY 1989		FY 1990		FY 1991	
	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)
TROPICAL RESEARCH INSTITUTE														
FEDERAL SALARY & EXPENSES	88	3554	87	3798	87	4243	87	4243	87	4243	87	4243	87	4243
UNRESTRICTED GENERAL														
-PROGRAM & ADMINISTRATIVE	2	148	2	124	2	133	2	137	2	141	2	144	2	149
-AUXILIARY ACTIVITY	0	0	0	0	0	0	0	0	0	0	0	0	0	0
UNRESTRICTED SPECIAL PURPOSE														
-BUREAU ACTIVITY	0	202	0	164	0	168	0	172	0	200	0	215	0	246
-ALL OTHER	0	279	0	47	0	65	0	50	0	57	0	62	0	67
RESTRICTED	0	338	0	339	0	330	0	200	0	180	0	100	0	120
FEDERAL GRANTS & CONTRACTS	0	4	0	0	0	0	0	0	0	0	0	0	0	0
-SUBTOTAL	90	4525	89	4472	89	4939	89	4802	89	4821	89	4764	89	4825
SMITHSONIAN ENVIRONMENTAL RESEARCH CTR														
FEDERAL SALARY & EXPENSES	65	3324	69	3528	69	3614	69	3614	69	3614	69	3614	69	3614
UNRESTRICTED GENERAL														
-PROGRAM & ADMINISTRATIVE	1	82	1	75	1	84	1	86	1	89	1	91	1	94
-AUXILIARY ACTIVITY	0	0	0	0	0	0	0	0	0	0	0	0	0	0
UNRESTRICTED SPECIAL PURPOSE														
-BUREAU ACTIVITY	0	35	0	21	0	12	0	12	0	14	0	15	0	17
-ALL OTHER	0	95	0	93	0	100	0	105	0	110	0	115	0	120
RESTRICTED	0	24	0	30	0	5	0	0	0	0	0	0	0	0
FEDERAL GRANTS & CONTRACTS	8	377	8	382	8	383	2	85	2	90	2	90	0	90
-SUBTOTAL	74	3937	78	4129	78	4198	72	3902	72	3917	72	3925	70	3935
NATIONAL AIR & SPACE MUSEUM														
FEDERAL SALARY & EXPENSES	227	8112	211	8515	211	8712	211	8712	211	8712	211	8712	211	8712
UNRESTRICTED GENERAL														
-PROGRAM & ADMINISTRATIVE	0	8	0	8	0	8	0	8	0	8	0	8	0	8
-AUXILIARY ACTIVITY	0	0	0	0	0	0	0	0	0	0	0	0	0	0
UNRESTRICTED SPECIAL PURPOSE														
-BUREAU ACTIVITY	16	1933	16	1912	16	1679	16	1713	16	1840	16	1845	16	1860
-ALL OTHER	13	1193	13	1175	13	1089	13	1110	13	1135	13	1160	13	1185
RESTRICTED	0	252	0	131	0	87	0	148	0	152	0	157	0	162
FEDERAL GRANTS & CONTRACTS	2	101	3	294	3	275	3	260	3	265	3	270	3	280
-SUBTOTAL	258	11599	243	12035	243	11850	243	11951	243	12112	243	12152	243	12207

Zoological Park (NZP). In 1989, the Zoo will celebrate its Centennial, and efforts during this planning period are directed at improving the quality of its programs and facilities. The Zoo will continue the development of long-term zoological and biomedical research activities at Rock Creek and Front Royal. Emphasis will be placed on research problems related to the captive management of wildlife and conservation biology, including physiology, ecology and behavior. The zoo will continue to study reintroducing animals to their natural habitats. Training programs for developing wildlife conservation techniques in the tropics will focus on wildlife biologists from developing nations. The visiting public will be made more aware of the plight of endangered species through the use of signs, labels, and improved graphics. During the planning period facilities and exhibits work will continue on implementing the Rock Creek 1972 Master Plan. The projects include completion of the Entrance way and Olmsted Walk exhibits; construction of an aquatic exhibit; renovation of the hospital and research facilities; exhibits for savannah and plains animals. At the Front Royal Conservation and Research Center, appropriate facilities for primates, large-hoofed stock, animal health programs, and maintenance of the Center are being scheduled. Sound preventative maintenance programs will be pursued to include new buildings constructed at Rock Creek Park and Front Royal, Virginia.

SMITHSONIAN INSTITUTION
APPLICATION OF OPERATING FUNDS
FY 1985 AND PROJECTED THROUGH 1991

TABLE 5 (3)

SCIENCE	FY 1985		FY 1986		FY 1987		FY 1988		FY 1989		FY 1990		FY 1991	
	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)
NATIONAL ZOOLOGICAL PARK														
FEDERAL SALARY & EXPENSES														
UNRESTRICTED GENERAL	320	11104	318	11519	318	11747	318	11747	318	11747	318	11747	318	11747
-PROGRAM & ADMINISTRATIVE	1	109	1	112	1	113	1	114	1	115	1	116	1	117
-AUXILIARY ACTIVITY	0	0	0	0	0	0	0	0	0	0	0	0	0	0
UNRESTRICTED SPECIAL PURPOSE														
-BUREAU ACTIVITY	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-ALL OTHER	0	216	0	133	0	125	0	127	0	1331	0	1733	0	336
RESTRICTED	0	156	0	111	0	60	0	68	0	71	0	77	0	77
FEDERAL GRANTS & CONTRACTS	0	80	0	0	0	0	0	0	0	0	0	0	0	0
-SUBTOTAL	321	11665	319	11875	319	12045	319	12056	319	13264	319	13673	319	12277
SCIENCE-SUMMARY														
FEDERAL SALARY & EXPENSES	1312	55250	1303	57648	1303	59992	1303	59992	1303	59992	1303	59992	1303	59992
UNRESTRICTED GENERAL	48	2819	48	2806	48	2916	48	3094	48	3282	48	3469	48	3618
-PROGRAM & ADMINISTRATIVE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-AUXILIARY ACTIVITY	49	3356	18	2248	18	2011	18	2048	18	2205	18	2226	18	2274
UNRESTRICTED SPECIAL PURPOSE	13	4168	13	2062	13	2053	13	2088	13	3371	13	3893	13	2572
-BUREAU ACTIVITY	8	2957	8	2738	10	4952	8	3222	6	4284	6	3260	6	2663
-ALL OTHER	153	15392	167	15163	160	15479	167	20955	167	21582	160	18969	141	13676
RESTRICTED														
FEDERAL GRANTS & CONTRACTS														
-TOTAL	1583	83942	1557	82665	1552	87403	1557	91399	1555	94716	1548	91809	1529	84795
Less SAO overhead recovery														
- Program and Administrative		-2282		-2340		-2430		-2600		-2780		-2960		-3100

HISTORY AND ART

Assistant Secretary for History and Art. This Office provides advice and guidance to history and art activities of the Institution. Opening of the Center for Asian Art and moving the National Museum of African Art to its new quarters on the Mall are activities of highest priority.

Joseph Henry Papers (JHP). Over the next five years, this documentary project will continue to collect, transcribe, edit and publish the manuscripts of Joseph Henry, the first Secretary of the Smithsonian Institution.

Museum of American History (NMAH). During this period, the Museum will seek ways to expand its research activities and to strengthen its automation capability. The Museum plans to establish a Center for the Study of American History, which would combine, in a more structured way, the existing research centers of the Museum, namely the Eisenhower Institute, Afro-American Research Project, Archives Center and the Journal, "Technology and Culture." Such a Center would encourage intramural research, promote new affiliations and provide an appropriate setting for an active program of seminars. The Museum will also work toward systematically establishing a link between objects and information documenting their history, thereby ensuring that its collections fully support the research and educational goals of the Institution. Additional resources would also increase the accessibility of 4,000 cubic feet of rich documentary holdings in the Archives Center and create a photographic record of all objects in the collection to buttress security, support research on the collections as well as exhibits and to provide a better basis for responding to public inquiries. The Museum will continue to pursue a ten-year major reinstallation program of its permanent exhibitions. A vigorous schedule of temporary exhibits including an exhibition commemorating the Bicentennial of the signing of the United States Constitution and a major exhibition in celebration of Columbus' discovery of America is planned. Establishment and growth of the Native American Program and the Afro-American Research Project will continue.

SMITHSONIAN INSTITUTION
APPLICATION OF OPERATING FUNDS
FY 1985 AND PROJECTED THROUGH 1991

TABLE 6 (1)

	FY 1985		FY 1986		FY 1987		FY 1988		FY 1989		FY 1990		FY 1991	
	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)
HISTORY & ART														
ASSISTANT SECRETARY FOR HISTORY & ART														
FEDERAL SALARY & EXPENSES	4	185	3	184	3	188	3	188	3	188	3	188	3	188
UNRESTRICTED GENERAL														
-PROGRAM & ADMINISTRATIVE	0	5	0	4	0	4	0	4	0	4	0	4	0	4
-AUXILIARY ACTIVITY	0	0	0	0	0	0	0	0	0	0	0	0	0	0
UNRESTRICTED SPECIAL PURPOSE														
-BUREAU ACTIVITY	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-ALL OTHER	0	0	0	0	0	0	0	0	0	0	0	0	0	0
RESTRICTED	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FEDERAL GRANTS & CONTRACTS	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-SUBTOTAL	4	190	3	188	3	192	3	192	3	192	3	192	3	192
JOSEPH HENRY PAPERS														
FEDERAL SALARY & EXPENSES	5	216	5	180	5	182	5	182	5	182	5	182	5	182
UNRESTRICTED GENERAL														
-PROGRAM & ADMINISTRATIVE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-AUXILIARY ACTIVITY	0	0	0	0	0	0	0	0	0	0	0	0	0	0
UNRESTRICTED SPECIAL PURPOSE														
-BUREAU ACTIVITY	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-ALL OTHER	0	3	0	1	0	1	0	1	0	1	0	1	0	1
RESTRICTED	0	0	0	1	0	1	0	28	0	28	0	29	0	30
FEDERAL GRANTS & CONTRACTS	0	2	0	0	0	0	0	0	0	0	0	0	0	0
-SUBTOTAL	5	221	5	182	5	184	5	211	5	211	5	212	5	213
MUSEUM OF AMERICAN HISTORY														
FEDERAL SALARY & EXPENSES	301	11130	301	11912	301	12357	301	12357	301	12357	301	12357	301	12357
UNRESTRICTED GENERAL														
-PROGRAM & ADMINISTRATIVE	4	354	3	207	2	176	2	180	2	185	2	190	2	195
-AUXILIARY ACTIVITY	0	0	0	0	0	0	0	0	0	0	0	0	0	0
UNRESTRICTED SPECIAL PURPOSE														
-BUREAU ACTIVITY	0	107	0	17	0	17	0	3	0	3	0	4	0	4
-ALL OTHER	1	686	1	339	1	332	0	406	0	418	0	431	0	444
RESTRICTED	0	267	0	719	0	515	0	284	0	293	0	301	0	311
FEDERAL GRANTS & CONTRACTS	1	41	1	9	0	0	0	0	0	0	0	0	0	0
-SUBTOTAL	307	12585	306	13203	304	13397	303	13230	303	13256	303	13283	303	13311

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Museum of American Art (NMAA). Throughout the period, the Museum plans to strengthen areas of collections management, research, exhibitions, publications, security and general administration through acquisition of computer hardware and integration of the Museum's programs with the Institution's various information systems. Enhancement of NMAA's foremost automated research resources, the Inventory of American Painting, and the establishment of a parallel Inventory of American Sculpture, will strengthen the Museum's position as a national resource for the study of American art. The vital task of preserving and restoring irreplaceable American art works will remain an important program. The Museum plans to continue to strengthen the permanent collection, especially through the acquisition of art photographs. In addition, the Museum continues to look forward to occupancy of the General Post Office building, which will be shared with the Portrait Gallery and the Archives of American Art.

Portrait Gallery (NPG). In anticipation of additional resources at some future time, the Gallery continues to plan to strengthen registrar, exhibition, education and public orientation programs and to develop the permanent collection. In addition, the Gallery will refine its plans for use of space in the General Post Office Building. Two major exhibitions are planned in commemoration of the Bicentennial of the U.S. Constitution: "The Portrait in America from 1700 to 1776," and "Portraits of Distinguished American Jurists." To coincide with the opening of the American Jurists show, an interpretive program to encourage the reading and understanding of the U.S. Constitution, to examine the lives of the men who wrote it, and the great legal figures who interpreted it, will be offered to high school classes of gifted and talented students. A symposium and a self-portrait program may also be presented in conjunction with this exhibition. Further, to mark the 20th year of its opening, in 1988 the Portrait Gallery plans a series of events, among them a major symposium on aspects of American biography, a series of public lectures, and a banquet honoring major donors. Moderate increases for acquisitions are needed to acquire portraits of prominent people by portraitists of the highest calibre. Additional resources are also needed to strengthen the Gallery's research programs, to improve research facilities in the library and to broaden publication programs to include a series of guides to portions of the permanent collections. These resources are not contained in the projections.

Hirshhorn Museum (HMSG). The Museum plans to refine and broaden its collections through acquisitions and deaccessions. Accessioning the 6,000 works in the Hirshhorn Bequest into the permanent collection is a high priority. Increased resources will be required to conduct comparative studies of the 6,000 works of art in the Bequest and the 7,500 already in its collections, to reduce any duplication and to establish relationships between the "new" works and the original gift. In addition, biographical research will have to be conducted with respect to artists not already represented in the collection. Increased resources are needed for a major new publication, based upon the permanent collection which by 1991 will number 14,000 objects, and for the initial planning and installation of a major exhibition for the Columbus Quincentennial.

SMITHSONIAN INSTITUTION
APPLICATION OF OPERATING FUNDS
FY 1985 AND PROJECTED THROUGH 1991

TABLE 6 (2)

HISTORY & ART	FY 1985		FY 1986		FY 1987		FY 1988		FY 1989		FY 1990		FY 1991	
	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)
MUSEUM OF AMERICAN ART														
FEDERAL SALARY & EXPENSES	115	4625	118	4793	118	4959	118	4959	118	4959	118	4959	118	4959
UNRESTRICTED GENERAL														
-PROGRAM & ADMINISTRATIVE	0	63	0	45	0	47	0	47	0	47	0	49	0	49
-AUXILIARY ACTIVITY	0	0	0	0	0	0	0	0	0	0	0	0	0	0
UNRESTRICTED SPECIAL PURPOSE														
-BUREAU ACTIVITY	0	5	0	11	0	13	0	13	0	13	0	13	0	13
-ALL OTHER	4	546	4	160	4	164	4	157	4	157	4	157	4	157
RESTRICTED	0	315	0	760	0	394	0	79	0	81	0	84	0	86
FEDERAL GRANTS & CONTRACTS	0	2	0	0	0	0	0	0	0	0	0	0	0	0
-SUBTOTAL	119	5556	122	5769	122	5577	122	5255	122	5257	122	5262	122	5264
NATIONAL PORTRAIT GALLERY														
FEDERAL SALARY & EXPENSES	82	3407	83	3591	83	3770	83	3810	83	3690	83	3690	83	3690
UNRESTRICTED GENERAL														
-PROGRAM & ADMINISTRATIVE	0	13	0	18	0	18	0	18	0	18	0	19	0	19
-AUXILIARY ACTIVITY	0	0	0	0	0	0	0	0	0	0	0	0	0	0
UNRESTRICTED SPECIAL PURPOSE														
-BUREAU ACTIVITY	0	10	0	16	0	17	0	20	0	20	0	20	0	20
-ALL OTHER	4	112	0	88	0	71	0	80	0	80	0	80	0	80
RESTRICTED	2	192	2	158	0	126	0	150	0	150	0	150	0	150
FEDERAL GRANTS & CONTRACTS	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-SUBTOTAL	88	3734	85	3871	83	4002	83	4078	83	3958	83	3959	83	3959
HIRSHHORN MUSEUM & SCULPTURE GARDEN														
FEDERAL SALARY & EXPENSES	73	2923	77	3112	77	3233	77	3233	77	3233	77	3233	77	3233
UNRESTRICTED GENERAL														
-PROGRAM & ADMINISTRATIVE	0	14	0	13	0	13	0	13	0	13	0	14	0	14
-AUXILIARY ACTIVITY	0	0	0	0	0	0	0	0	0	0	0	0	0	0
UNRESTRICTED SPECIAL PURPOSE														
-BUREAU ACTIVITY	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-ALL OTHER	0	258	0	62	0	66	0	47	0	47	0	47	0	47
RESTRICTED	0	219	0	423	0	197	0	200	0	200	0	200	0	200
FEDERAL GRANTS & CONTRACTS	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-SUBTOTAL	73	3414	77	3610	77	3509	77	3493	77	3493	77	3494	77	3494

Center for Asian Art (CAA). The Center, which incorporates the programs of the Freer Gallery of Art and the

Arthur M. Sackler Gallery, anticipates significant staff and resource growth in selected areas over the next five years. These are incorporated in the tables below for the Sackler Gallery. Additional program resources for the Freer Gallery, however, are not incorporated. The Freer would like added funds to strengthen research programs in the areas of Indian and South Asian art, and curatorial support in specific areas of specialization to automate collections records. Staff and resources are projected for the Sackler Gallery to provide remedial conservation work to the objects given to the Gallery; to develop its traveling exhibition, research, collections acquisition and public orientation programs, as well as automation capability. Future year plans include expansion of the education, public orientation and exhibition programs of the Sackler Gallery. The present Freer conservation facilities should be renovated to accommodate examination and treatment of objects for the Sackler Collection and an expanded Oriental painting restoration program. The Sackler Gallery anticipates publication of one major catalogue each year as well as gallery guides, leaflets and other materials for the public. Preparation of the inaugural exhibition and installation of the galleries are also high priority and resources are incorporated for this purpose. Future emphasis will be placed on the development of an aggressive collections acquisition program for both the Freer Gallery of Art and the Sackler Gallery to assure acquisition of the finest quality objects and to search for particular examples that strengthen existing holdings.

Archives of American Art (AAA). The Archives staff will direct attention to the management and care of the collections by strengthening its collections management operations, eliminating its processing backlog, organizing its collections, fine tuning the collection catalog, taking necessary conservation measures and converting collections management systems from manual to automated. Of immediate concern is the care of the photograph collection, for which curatorial support and conservation services are required but are not contained in the projections. Conservation of 2,500 valuable oral histories is also a high priority and a system for proper handling and storage of the original tapes needs to be developed. The Archives will continue to plan for the move to the General Post Office Building, where for the first time all of the Archives' primary documents would be made available in one location. Occupancy of the building would require substantial additional increases.

Cooper-Hewitt Museum (CHM). The Museum has started a major fundraising effort in order to undertake and complete improvements to its physical facilities. Exhibition programming and educational activities will continue during the fundraising cycle, and in off-site locations during any construction activity. Collections management efforts will focus on refinement of collections records, and, when appropriate, relocating the collections for renovation efforts to proceed. Increased federal resources for the care and preservation of the collections and to maintain the physical plant and facilities are needed but are not contained in the projections. Similarly, additional curatorial and research support to manage graphic and archival collections not appropriately combined with the existing prints and drawings holdings, as well as curatorial support for its architectural, design, and wall coverings collections are needed.

SMITHSONIAN INSTITUTION
APPLICATION OF OPERATING FUNDS
FY 1985 AND PROJECTED THROUGH 1991

TABLE 6 (3)

	FY 1985		FY 1986		FY 1987		FY 1988		FY 1989		FY 1990		FY 1991	
	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)
HISTORY & ART														
CENTER FOR ASIAN ART														
FEDERAL SALARY & EXPENSES	33	1549	46	3074	68	4106	72	4385	78	4706	79	4831	79	4831
UNRESTRICTED GENERAL														
-PROGRAM & ADMINISTRATIVE	1	57	1	2081	1	1567	1	1569	1	570	1	72	1	73
-AUXILIARY ACTIVITY	0	0	0	0	0	0	0	0	0	0	0	0	0	0
UNRESTRICTED SPECIAL PURPOSE														
-BUREAU ACTIVITY	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-ALL OTHER	0	60	0	3	0	3	0	3	0	3	0	3	0	3
RESTRICTED	22	2133	22	1657	22	1582	22	1600	22	1650	22	1700	22	1750
FEDERAL GRANTS & CONTRACTS	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-SUBTOTAL	56	3799	69	6815	91	7258	95	7557	101	6929	102	6606	102	6657
ARCHIVES OF AMERICAN ART														
FEDERAL SALARY & EXPENSES	17	732	18	894	18	931	18	931	18	931	18	931	18	931
UNRESTRICTED GENERAL														
-PROGRAM & ADMINISTRATIVE	0	2	0	4	0	4	0	4	0	4	0	4	0	4
-AUXILIARY ACTIVITY	0	0	0	0	0	0	0	0	0	0	0	0	0	0
UNRESTRICTED SPECIAL PURPOSE														
-BUREAU ACTIVITY	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-ALL OTHER	0	0	0	0	0	0	0	0	0	0	0	0	0	0
RESTRICTED	17	994	16	1201	16	1107	19	1119	20	1170	21	1223	22	1278
FEDERAL GRANTS & CONTRACTS	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-SUBTOTAL	34	1728	34	2099	34	2042	37	2054	38	2105	39	2158	40	2213
COOPER HEWITT MUSEUM														
FEDERAL SALARY & EXPENSES	26	880	26	942	26	1011	26	1011	26	1011	26	1011	26	1011
UNRESTRICTED GENERAL														
-PROGRAM & ADMINISTRATIVE	20	720	20	733	20	757	20	770	20	784	20	798	20	812
-AUXILIARY ACTIVITY	0	0	0	0	0	0	0	0	0	0	0	0	0	0
UNRESTRICTED SPECIAL PURPOSE														
-BUREAU ACTIVITY	5	689	5	660	5	673	5	692	5	713	5	734	5	756
-ALL OTHER	0	255	0	481	0	364	0	396	0	408	0	420	0	433
RESTRICTED	1	422	1	880	1	1063	1	987	1	1016	1	1046	1	1077
FEDERAL GRANTS & CONTRACTS	0	69	0	50	0	50	0	50	0	50	0	50	0	50
-SUBTOTAL	52	3035	52	3746	52	3918	52	3906	52	3982	52	4059	52	4139

Museum of African Art (MMAFA). During the planning period, MMAFA will have completed the move to the Quadrangle and must begin to assume in full its unique national role as the only United States museum devoted solely to the collection, study and exhibition of African Art. Increased resources are necessary not only to strengthen each of its existing activities, but to initiate new programs that will make a substantive contribution nationally and internationally to the disciplines of African art studies. The Museum must begin a scholarly publications program that will include books as a result of scholarly research, substantive exhibition publications, a collection series bulletin, a semi-annual periodical, and a photographic archives newsletter. In addition, a conservation program of examination, scientific testing and preservation of collection material will be developed and the conservation staff will publish its findings, thereby addressing the very specialized area of authentication and critical public need for information about the composition and conservation of African art. Special emphasis will be placed also on the preservation of two existing collections of approximately 1,000 lantern slides and glass negatives comprising a rare and early archive (1902-23, 1906-20) of African people and villages in the Museum's Photographic Archives. This project will continue in future years, as early photographic material of this kind enters the archive collection and as the Museum acquires more recent fieldwork photographs by U.S. scholars.

Anacostia Neighborhood Museum (ANM). Completion and occupancy of the annex next to the present Exhibits Laboratory at Fort Stanton is the Museum's highest priority. The construction of this annex will permit the Museum to vacate its leased building and will allow consolidation of activities and development of more varied and vigorous programming for the public. The need for a new and modern museum building will also be examined over the period. Long-range plans include closer collaboration with other Smithsonian history and art museums involving joint research, systematic information collection and retrieval, education, collection and curation programs. Further, the Museum will continue to plan and develop research and exhibition projects that support in-house and traveling exhibitions and to locate and interpret historical documents, artifacts, and memorabilia that are germane to Afro-American studies and ethnohistory for use in museum exhibitions.

SMITHSONIAN INSTITUTION
APPLICATION OF OPERATING FUNDS
FY 1985 AND PROJECTED THROUGH 1991

TABLE 6 (4)

	FY 1985		FY 1986		FY 1987		FY 1988		FY 1989		FY 1990		FY 1991	
	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)
HISTORY & ART														
MUSEUM OF AFRICAN ART														
FEDERAL SALARY & EXPENSES	28	1188	40	2623	55	3342	55	3738	56	3773	56	3773	56	3773
UNRESTRICTED GENERAL														
-PROGRAM & ADMINISTRATIVE	2	600	2	55	1	84	1	38	1	39	1	39	1	40
-AUXILIARY ACTIVITY	0	0	0	0	0	0	0	0	0	0	0	0	0	0
UNRESTRICTED SPECIAL PURPOSE														
-BUREAU ACTIVITY	0	1	0	4	0	3	0	0	0	0	0	0	0	0
-ALL OTHER	0	104	0	8	0	5	0	7	0	7	0	7	0	7
RESTRICTED	0	58	0	721	0	1188	0	540	0	275	0	275	0	275
FEDERAL GRANTS & CONTRACTS	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-SUBTOTAL	30	1951	42	3411	56	4622	56	4323	57	4094	57	4094	57	4095
ANACOSTIA NEIGHBORHOOD MUSEUM														
FEDERAL SALARY & EXPENSES	17	817	19	888	19	910	19	910	19	910	19	910	19	910
UNRESTRICTED GENERAL														
-PROGRAM & ADMINISTRATIVE	1	38	1	41	1	41	1	42	1	43	1	44	1	45
-AUXILIARY ACTIVITY	0	0	0	0	0	0	0	0	0	0	0	0	0	0
UNRESTRICTED SPECIAL PURPOSE														
-BUREAU ACTIVITY	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-ALL OTHER	0	0	0	1	0	1	0	0	0	0	0	0	0	0
RESTRICTED	0	1	0	1	0	1	0	1	0	1	0	1	0	1
FEDERAL GRANTS & CONTRACTS	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-SUBTOTAL	18	856	20	931	20	953	20	953	20	954	20	955	20	956
HISTORY & ART-SUMMARY														
FEDERAL SALARY & EXPENSES	701	27652	736	32193	773	34989	777	35704	784	35940	785	36065	785	36065
UNRESTRICTED GENERAL														
-PROGRAM & ADMINISTRATIVE	28	1866	27	3201	25	2711	25	2685	25	1707	25	1233	25	1255
-AUXILIARY ACTIVITY	0	0	0	0	0	0	0	0	0	0	0	0	0	0
UNRESTRICTED SPECIAL PURPOSE														
-BUREAU ACTIVITY	5	812	5	708	5	723	5	728	5	749	5	771	5	793
-ALL OTHER	9	2024	5	1143	5	1007	4	1097	4	1121	4	1146	4	1172
RESTRICTED	42	4601	41	6521	39	6174	42	4988	43	4864	44	5009	45	5158
FEDERAL GRANTS & CONTRACTS	1	114	1	59	0	50	0	50	0	50	0	50	0	50
-TOTAL	786	37069	815	43825	847	45654	853	45252	861	44431	863	44274	864	44493

PUBLIC SERVICE

Assistant Secretary for Public Service. This Office provides administrative oversight and guidance to the Institution's Public Service programs. Overall goals over the next five years are to broaden educational outreach initiatives and national and international constituencies.

Office of Telecommunications (OTC). In FY 1986, the Office moved to facilities in the Museum of American History and is able to fill better the demands received from bureaus for audiovisual services. The completion of the Quadrangle International Center and the launching of its programs will bring an increase in such requests. The Office will also proceed with development and possible production of its children's television series, designed for ages 9-12. Other projects planned or under consideration for the period include programs for young citizens relating to the Constitution Bicentennial in 1987, the application of teleconferencing to symposia and scientific meetings involving the Smithsonian, a potential radio series featuring a wide variety of American music, and major film, video or radio programs marking the Columbus Quincentennial in 1992. In addition, the Office will explore video projects designed to increase the Smithsonian's presence in the educational and home video markets.

Visitor Information and Associates' Reception Center (VIARC). Information and reception services for the public and Associate members of the Institution are projected to increase significantly with the opening of the Quadrangle, the phased opening of the new Smithsonian Information Center in the Castle (for which one million dollars has been received from the Pew Memorial Trust), and the continued implementation of the exterior graphic information system. Volunteer recruitment and training will be escalated to provide the appropriate level of staffing at museum and telephone information desks and in the new Information Center. VIARC will increase efforts to promote previsit education (through the tour and travel industry) and memberships in the Smithsonian Associates.

SMITHSONIAN INSTITUTION
APPLICATION OF OPERATING FUNDS
FY 1985 AND PROJECTED THROUGH 1991

TABLE 7 (1)

	FY 1985		FY 1986		FY 1987		FY 1988		FY 1989		FY 1990		FY 1991	
	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)
PUBLIC SERVICE														
ASSISTANT SECRETARY FOR PUBLIC SERVICE														
FEDERAL SALARY & EXPENSES														
UNRESTRICTED GENERAL	4	217	4	223	4	224	4	224	4	224	4	224	4	224
-PROGRAM & ADMINISTRATIVE	3	102	3	106	3	110	2	79	2	81	2	83	2	85
-AUXILIARY ACTIVITY	0	0	0	0	0	0	0	0	0	0	0	0	0	0
UNRESTRICTED SPECIAL PURPOSE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-BUREAU ACTIVITY	1	290	0	0	0	0	0	0	0	0	0	0	0	0
-ALL OTHER	0	78	0	0	0	0	0	0	0	0	0	0	0	0
RESTRICTED	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FEDERAL GRANTS & CONTRACTS	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-SUBTOTAL	8	687	7	329	7	334	6	303	6	305	6	307	6	309
OFFICE OF TELECOMMUNICATIONS														
FEDERAL SALARY & EXPENSES														
UNRESTRICTED GENERAL	5	213	5	219	5	222	5	222	5	222	5	222	5	222
-PROGRAM & ADMINISTRATIVE	9	522	9	557	9	590	9	657	10	735	10	774	10	798
-AUXILIARY ACTIVITY	0	0	0	0	0	0	0	0	0	0	0	0	0	0
UNRESTRICTED SPECIAL PURPOSE	0	75	0	57	0	58	0	60	0	74	0	83	0	95
-BUREAU ACTIVITY	0	88	0	100	0	58	0	0	0	0	0	0	0	0
-ALL OTHER	0	1	0	0	0	0	0	0	0	0	0	0	0	0
RESTRICTED	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FEDERAL GRANTS & CONTRACTS	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-SUBTOTAL	14	899	14	933	14	928	14	939	15	1031	15	1079	15	1115
VISITOR'S INFORMATION & RECEPTION CENTER														
FEDERAL SALARY & EXPENSES														
UNRESTRICTED GENERAL	4	181	2	163	2	169	2	169	2	169	2	169	2	169
-PROGRAM & ADMINISTRATIVE	18	661	22	731	23	783	24	807	24	832	24	858	24	885
-AUXILIARY ACTIVITY	0	0	0	0	0	0	0	0	0	0	0	0	0	0
UNRESTRICTED SPECIAL PURPOSE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-BUREAU ACTIVITY	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-ALL OTHER	0	0	0	1	0	0	0	0	0	0	0	0	0	0
RESTRICTED	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FEDERAL GRANTS & CONTRACTS	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-SUBTOTAL	22	842	24	895	25	952	26	976	26	1001	26	1027	26	1054

Office of Public Affairs. For the third consecutive year, the Office is conducting in FY 1986 a program to increase minority visits to the Institution and minority participation in Smithsonian activities; radio, printed materials and televised public service announcements are part of the effort. The Office is also exploring the feasibility of producing a Spanish-language version of the Smithsonian News Service, a feature story service produced by OPA and distributed to more than 1,557 newspapers nationwide. The Office is also preparing plans for electronic distribution of the Smithsonian News Service to selected newspapers at cost. OPA plans to continue to cooperate with the Office of Elementary and Secondary Education in exploring the production of a periodical designed for junior high school students to be distributed to various school systems. Media materials on Smithsonian research will continue to be produced. Electronic links between the central Office and various individual bureau public information offices will increase in order to speed the processing of news releases and other materials. Efforts will be intensified to increase public awareness of Smithsonian performances and cultural events. Intensive planning for the opening of the Quadrangle facilities is being carried out, with emphasis on coordination of pertinent activities, an overall pan-Institutional public affairs program and the planned production of a new general information brochure and other materials.

Smithsonian Institution Press (SIP). Long-range plans call for gradual growth of the university press division. Emphasis will be placed on scholarly publications in anthropology, music, art and art history, American studies, and museum management. Careful attention will continue to be given to electronic publishing (data base storage and retrieval) and video cassettes/discs. The direct mail book division's goals are to continue to publish books of general interest primarily to Smithsonian Associates that are well-written and carefully researched. The records division will continue to produce one or two popular record packages a year. Sales of Smithsonian Collection recordings are expected to increase somewhat.

SMITHSONIAN INSTITUTION

APPLICATION OF OPERATING FUNDS

FY 1985 AND PROJECTED THROUGH 1991

TABLE 7 (2)

	FY 1985		FY 1986		FY 1987		FY 1988		FY 1989		FY 1990		FY 1991	
	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)
PUBLIC SERVICE														
OFFICE OF PUBLIC AFFAIRS														
FEDERAL SALARY & EXPENSES	12	559	12	599	12	642	12	611	12	611	12	611	12	611
UNRESTRICTED GENERAL														
-PROGRAM & ADMINISTRATIVE	4	326	4	378	4	404	4	419	4	435	4	451	4	468
-AUXILIARY ACTIVITY	0	0	0	0	0	0	0	0	0	0	0	0	0	0
UNRESTRICTED SPECIAL PURPOSE														
-BUREAU ACTIVITY	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-ALL OTHER	0	10	0	1	0	1	0	1	0	1	0	1	0	1
RESTRICTED	0	1	0	0	0	0	0	0	0	0	0	0	0	0
FEDERAL GRANTS & CONTRACTS	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-SUBTOTAL	16	896	16	978	16	1047	16	1031	16	1047	16	1063	16	1080
SMITHSONIAN INSTITUTION PRESS														
FEDERAL SALARY & EXPENSES	29	1124	29	1121	29	1147	29	1147	29	1147	29	1147	29	1147
UNRESTRICTED GENERAL														
-PROGRAM & ADMINISTRATIVE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-AUXILIARY ACTIVITY	35	13645	35	11975	37	13100	37	14230	37	15340	38	16480	38	17235
UNRESTRICTED SPECIAL PURPOSE														
-BUREAU ACTIVITY	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-ALL OTHER	0	49	0	0	0	0	0	0	0	0	0	0	0	0
RESTRICTED	0	58	0	11	0	0	0	0	0	0	0	0	0	0
FEDERAL GRANTS & CONTRACTS	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-SUBTOTAL	64	14876	64	13107	66	14247	66	15377	66	16487	67	17627	67	18382
PUBLIC SERVICE-SUMMARY														
FEDERAL SALARY & EXPENSES	54	2294	52	2325	52	2404	52	2373	52	2373	52	2373	52	2373
UNRESTRICTED GENERAL														
-PROGRAM & ADMINISTRATIVE	34	1611	38	1772	39	1887	39	1962	40	2083	40	2166	40	2236
-AUXILIARY ACTIVITY	35	13645	35	11975	37	13100	37	14230	37	15340	38	16480	38	17235
UNRESTRICTED SPECIAL PURPOSE														
-BUREAU ACTIVITY	0	75	0	57	0	58	0	60	0	74	0	83	0	95
-ALL OTHER	1	437	0	102	0	59	0	1	0	1	0	1	0	1
RESTRICTED	0	138	0	11	0	0	0	0	0	0	0	0	0	0
FEDERAL GRANTS & CONTRACTS	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-TOTAL	124	18200	125	16242	128	17508	128	18626	129	19871	130	21103	130	21940

MUSEUM PROGRAMS

Assistant Secretary for Museum Programs. The Office maintains close working relationships with national and international museological organizations. The Office continues to review utilization of resources available to museum programs to assure the most effective application to requirements.

Office of Museum Programs (OME). During the planning period, the Office of Museum Programs intends to continue museology training and counseling activities and its audiovisual and publication program. The number of museum training programs for Smithsonian staff will be maintained or reduced, as will the frequency of regionally based and cosponsored workshops. The Office will continue to place emphasis on activities serving minority needs within the museum profession.

Office of the Registrar (OR). This Office is responsible for Institutional development, oversight, and coordination of policies and practices related to the management of collections, including accountability procedures and information management techniques for all objects and specimens held by the Smithsonian. Inventory, one aspect of collections management touching on all these matters, has been and will continue to be an important concern throughout the planning period because all bureaus are required to conduct cyclical inventories now that their initial 1978-83 baseline inventories have been completed. A related concern will be the enhancement and updating of collection records to improve knowledge about and access to the collections. In addition, training programs will be developed to support Smithsonian personnel working in collection registration and related functions. The Office also will continue to manage the affairs of the Smithsonian's Registrarial Council and will develop collections management information for dissemination through this group.

SMITHSONIAN INSTITUTION
APPLICATION OF OPERATING FUNDS
FY 1985 AND PROJECTED THROUGH 1991

TABLE 8 (1)

MUSEUM PROGRAMS	FY 1985		FY 1986		FY 1987		FY 1988		FY 1989		FY 1990		FY 1991	
	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)
ASSISTANT SECRETARY FOR MUSEUM PROGRAMS														
FEDERAL SALARY & EXPENSES	4	237	7	361	7	369	7	369	7	369	7	369	7	369
UNRESTRICTED GENERAL														
-PROGRAM & ADMINISTRATIVE	0	10	0	9	0	9	0	9	0	9	0	9	0	9
-AUXILIARY ACTIVITY	0	0	0	0	0	0	0	0	0	0	0	0	0	0
UNRESTRICTED SPECIAL PURPOSE														
-BUREAU ACTIVITY	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-ALL OTHER	0	1	0	0	0	0	0	0	0	0	0	0	0	0
RESTRICTED	0	1	0	0	0	0	0	0	0	0	0	0	0	0
FEDERAL GRANTS & CONTRACTS	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-SUBTOTAL	4	249	7	370	7	378	7	378	7	378	7	378	7	378
OFFICE OF MUSEUM PROGRAMS														
FEDERAL SALARY & EXPENSES	12	356	12	367	12	379	12	379	12	379	12	379	12	379
UNRESTRICTED GENERAL														
-PROGRAM & ADMINISTRATIVE	0	4	0	6	0	9	0	10	0	10	0	11	0	11
-AUXILIARY ACTIVITY	0	0	0	0	0	0	0	0	0	0	0	0	0	0
UNRESTRICTED SPECIAL PURPOSE														
-BUREAU ACTIVITY	0	54	0	48	0	47	0	70	0	75	0	80	0	85
-ALL OTHER	0	27	0	5	0	6	0	0	0	0	0	0	0	0
RESTRICTED	3	376	3	483	3	437	0	0	0	0	0	0	0	0
FEDERAL GRANTS & CONTRACTS	0	2	0	1	0	0	0	0	0	0	0	0	0	0
-SUBTOTAL	15	819	15	910	15	878	12	459	12	464	12	470	12	475
OFFICE OF THE REGISTRAR														
FEDERAL SALARY & EXPENSES	1	32	2	99	2	102	2	102	2	102	2	102	2	102
UNRESTRICTED GENERAL														
-PROGRAM & ADMINISTRATIVE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-AUXILIARY ACTIVITY	0	0	0	0	0	0	0	0	0	0	0	0	0	0
UNRESTRICTED SPECIAL PURPOSE														
-BUREAU ACTIVITY	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-ALL OTHER	0	0	0	0	0	0	0	0	0	0	0	0	0	0
RESTRICTED	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FEDERAL GRANTS & CONTRACTS	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-SUBTOTAL	1	32	2	99	2	102	2	102	2	102	2	102	2	102

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Conservation Analytical Laboratory (CAL).

Activities are undergoing growth over the next several years as the Laboratory's conservation, scientific, and information staffs activate and utilize the new facilities at the Museum Support Center. Equipment and work areas allow for more complete treatment of several classes of materials, and modern instrumentation permits a wider range of analysis and research to provide answers to pressing conservation questions. Research will also provide a technology base for new work in conservation techniques, for understanding mechanisms which govern deterioration processes, and for control of environmental conditions for museum objects. The range of objects subject to archaeometric research will be extended and the data bases produced by this research will be enlarged. Existing archaeometric data currently scattered in laboratories throughout the country are being brought together in the Smithsonian Archaeometric Research Collections and Records (SARCAR). All of these staff, laboratory and information resources will be available for the development of the conservation training program, for which activities are scheduled to begin on a limited scale in 1986. Acquisition of new equipment for the CAL laboratories and training areas is planned to be continued through FY 1986.

Smithsonian Institution Libraries (SIL).

The principal objective of the Libraries over the planning period is to build a working collection to meet the needs of SI scholars, to identify and describe 400,000 titles not yet included in the SIL computer database, to begin treating preservation problems present in approximately 90% of the collections by microfilming and other techniques and to plan further for a central, permanent facility in which to consolidate the general reference, special and rare collections, central acquisitions and processing services and SIL administration. The SIL will continue to support directly the wide fields of SI scholarly research and public and administrative programs through its system of branches located in Washington, Cambridge, New York City, and Panama; its interlibrary loan services; and its online data services. Requirements for establishing library services in the Quadrangle are contained in Libraries projections and are aggregated for display purposes in Table 3.

Office of Exhibits Central (OEC).

The Office will continue to produce, install, and maintain exhibitions and to provide other specialized services to the bureaus of the Institution. Highly specialized OEC capabilities include design and editorial services, freeze-dry taxidermy and all types of model making. In support of the Office of Museum Programs, the OEC provides workshop training in exhibition media and techniques for museum professionals throughout the world. Over the course of this planning period obsolete equipment will be gradually replaced with more reliable and technologically current machinery. Some support for Quadrangle related exhibition programs is planned for future years and is contained in the OEC trends below and also appear in Table 3.

SMITHSONIAN INSTITUTION
APPLICATION OF OPERATING FUNDS
FY 1985 AND PROJECTED THROUGH 1991

TABLE 8 (2)

MUSEUM PROGRAMS	FY 1985		FY 1986		FY 1987		FY 1988		FY 1989		FY 1990		FY 1991	
	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)
CONSERVATION ANALYTICAL LABORATORY														
FEDERAL SALARY & EXPENSES	32	1783	39	2019	39	2069	39	2069	39	2069	39	2069	39	2069
UNRESTRICTED GENERAL														
-PROGRAM & ADMINISTRATIVE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-AUXILIARY ACTIVITY	0	0	0	0	0	0	0	0	0	0	0	0	0	0
UNRESTRICTED SPECIAL PURPOSE														
-BUREAU ACTIVITY	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-ALL OTHER	0	29	0	1	0	1	0	0	0	0	0	0	0	0
RESTRICTED	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FEDERAL GRANTS & CONTRACTS	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-SUBTOTAL	32	1812	39	2020	39	2070	39	2069	39	2069	39	2069	39	2069
SMITHSONIAN INSTITUTION LIBRARIES														
FEDERAL SALARY & EXPENSES	91	4289	96	4664	98	4836	98	4836	98	4836	98	4836	98	4836
UNRESTRICTED GENERAL														
-PROGRAM & ADMINISTRATIVE	9	312	10	335	10	351	10	361	10	372	10	383	10	395
-AUXILIARY ACTIVITY	0	0	0	0	0	0	0	0	0	0	0	0	0	0
UNRESTRICTED SPECIAL PURPOSE														
-BUREAU ACTIVITY	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-ALL OTHER	0	11	0	109	0	2	0	0	0	0	0	0	0	0
RESTRICTED	0	35	0	10	0	10	0	5	0	0	0	0	0	0
FEDERAL GRANTS & CONTRACTS	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-SUBTOTAL	100	4647	106	5118	108	5199	108	5202	108	5208	108	5219	108	5231
OFFICE OF EXHIBITS CENTRAL														
FEDERAL SALARY & EXPENSES	44	1470	42	1603	46	1774	46	1774	46	1774	46	1774	46	1774
UNRESTRICTED GENERAL														
-PROGRAM & ADMINISTRATIVE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-AUXILIARY ACTIVITY	0	0	0	0	0	0	0	0	0	0	0	0	0	0
UNRESTRICTED SPECIAL PURPOSE														
-BUREAU ACTIVITY	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-ALL OTHER	0	87	0	32	0	2	0	2	0	3	0	2	0	3
RESTRICTED	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FEDERAL GRANTS & CONTRACTS	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-SUBTOTAL	44	1557	42	1635	46	1776	46	1776	46	1777	46	1776	46	1777

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Traveling Exhibition Service (SITES). SITES currently occupies space in the Arts and Industries building but will be moving to Quadrangle exhibition and workshop areas when that facility is completed. Resources for Quadrangle and other support including Quincentennial research for FY 1986-1990 are in the projections below and also appear in Table 3. Education activities associated with SITES exhibitions will be sustained. These activities involve schools, multi-media workshops and workshops on new areas of education technology. Over the planning period the international exhibition program along with continued production and circulation of high quality exhibitions will be emphasized.

Smithsonian Archives (SIA). The Archives will extend archival and records management programs to all records-producing offices of the Institution, and will accept increases in volume and diversity of records transferred into the Archives to the extent of its space capabilities during the planning period. The photographic collections survey will continue and produce finder's guides and a central database. Phased improvements in micrographic capability and oral history capability are planned for this period on a limited basis, and development of Archives capability to automate its internal collections management and handle automated, machine-readable records from operating offices will be pursued. Alternatives to present space will be examined with a view to accommodating increasing volumes of materials.

National Museum Act (NMA). The Act is a technical assistance program that makes grants for projects that will enhance the quality of museum operations. Through these grants the Act supports professional training in museum activities, research for the improvement of museum methods, and the dissemination of technical information to the profession through publication and workshops or seminars. Many NMA projects involve advanced training in the field of conservation and scientific research that will result in new techniques for conservators and better methods for the care and preservation of objects. Research projects funded by the National Museum Act, especially in conservation, have generally not received support from other funding sources.

SMITHSONIAN INSTITUTION
APPLICATION OF OPERATING FUNDS
FY 1985 AND PROJECTED THROUGH 1991

TABLE 8 (3)

MUSEUM PROGRAMS	FY 1985		FY 1986		FY 1987		FY 1988		FY 1989		FY 1990		FY 1991	
	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)
TRAVELING EXHIBITION SERVICE														
FEDERAL SALARY & EXPENSES	6	332	8	407	15	601	17	661	19	761	20	811	20	811
UNRESTRICTED GENERAL														
-PROGRAM & ADMINISTRATIVE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-AUXILIARY ACTIVITY	23	1561	31	1840	33	2005	34	2100	36	2190	37	2275	38	2365
UNRESTRICTED SPECIAL PURPOSE														
-BUREAU ACTIVITY	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-ALL OTHER	3	413	0	2	0	0	0	50	0	50	0	50	0	50
RESTRICTED	1	651	1	1300	1	560	2	1000	0	1000	0	1000	0	1000
FEDERAL GRANTS & CONTRACTS	0	13	0	0	0	0	0	0	0	0	0	0	0	0
-SUBTOTAL	33	2970	40	3549	49	3166	53	3811	55	4001	57	4136	58	4226
SMITHSONIAN ARCHIVES														
FEDERAL SALARY & EXPENSES	14	511	15	539	15	552	15	552	15	552	15	552	15	552
UNRESTRICTED GENERAL														
-PROGRAM & ADMINISTRATIVE	5	146	6	192	7	229	7	236	7	243	3	115	3	118
-AUXILIARY ACTIVITY	0	0	0	0	0	0	0	0	0	0	0	0	0	0
UNRESTRICTED SPECIAL PURPOSE														
-BUREAU ACTIVITY	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-ALL OTHER	0	1	0	0	0	0	0	0	0	0	0	0	0	0
RESTRICTED	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FEDERAL GRANTS & CONTRACTS	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-SUBTOTAL	19	658	21	731	22	781	22	788	22	795	18	667	18	670
NATIONAL MUSEUM ACT														
FEDERAL SALARY & EXPENSES	3	753	3	772	3	772	3	772	3	772	3	772	3	772
UNRESTRICTED GENERAL														
-PROGRAM & ADMINISTRATIVE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-AUXILIARY ACTIVITY	0	0	0	0	0	0	0	0	0	0	0	0	0	0
UNRESTRICTED SPECIAL PURPOSE														
-BUREAU ACTIVITY	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-ALL OTHER	0	0	0	0	0	0	0	0	0	0	0	0	0	0
RESTRICTED	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FEDERAL GRANTS & CONTRACTS	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-SUBTOTAL	3	753	3	772	3	772	3	772	3	772	3	772	3	772

SMITHSONIAN INSTITUTION
APPLICATION OF OPERATING FUNDS
FY 1985 AND PROJECTED THROUGH 1991

TABLE 8 (4)

MUSEUM PROGRAMS	FY 1985		FY 1986		FY 1987		FY 1988		FY 1989		FY 1990		FY 1991	
	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)
MUSEUM PROGRAMS - SUMMARY														
FEDERAL SALARY & EXPENSES														
UNRESTRICTED GENERAL	207	9763	224	10831	237	11454	239	11514	241	11614	242	11664	242	11664
-PROGRAM & ADMINISTRATIVE	14	472	16	542	17	598	17	616	17	634	13	518	13	533
-AUXILIARY ACTIVITY	23	1561	31	1840	33	2005	34	2100	36	2190	37	2275	38	2365
UNRESTRICTED SPECIAL PURPOSE														
-BUREAU ACTIVITY	0	54	0	48	0	47	0	70	0	75	0	80	0	85
-ALL OTHER	3	569	0	149	0	11	0	52	0	53	0	52	0	53
RESTRICTED	4	1063	4	1793	4	1007	2	1005	0	1000	0	1000	0	1000
FEDERAL GRANTS & CONTRACTS	0	15	0	1	0	0	0	0	0	0	0	0	0	0
- TOTAL	251	13497	275	15204	291	15122	292	15357	294	15566	292	15589	293	15700

DIRECTORATE OF INTERNATIONAL ACTIVITIES

Directorate of International Activities. Established on October 1, 1984, the Directorate consists of the International Center to be located in the Quadrangle, the Office of Service and Protocol (formerly the Office of International Activities) and the Office of Publications Exchange (formerly the International Exchange Service). Responsibility for managing the Institution's Foreign Currency Program was transferred to the Directorate from the Office of Fellowships and Grants effective October 1, 1985. The Directorate was created to monitor, coordinate and enhance the Smithsonian-wide array of work in the international field, and to plan, design and conduct programs of the International Center. The Directorate also is responsible for the pan-Institutional coordination and planning of the 1992 Commemoration of the Columbus Quincentennial. Commencing in 1987 and continuing through 1992, this program was anticipated to require substantial levels of funding, ranging from publications to exhibitions. Under the straight-lined projections below, considerable curtailment of plans and events may be necessary. Foreign Currency funds, not part of the Institution's federal operating appropriation, are not included in the table below; however, appropriations for this activity are not expected for FY 1987 and beyond. Throughout the planning period the Directorate will continue to administer funds previously appropriated to the Foreign Currency Program, and allocated under special arrangements such as the US-India Fund.

SMITHSONIAN INSTITUTION
APPLICATION OF OPERATING FUNDS
FY 1985 AND PROJECTED THROUGH 1991

TABLE 9 (1)

	FY 1985		FY 1986		FY 1987		FY 1988		FY 1989		FY 1990		FY 1991	
	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)
DIRECTORATE FOR INTERNATIONAL ACTIVITIES														
OIRECTORATE FOR INTERNATIONAL ACTIVITIES														
FEDERAL SALARY & EXPENSES														
UNRESTRICTED GENERAL	7	272	12	527	13	1027	13	1138	13	1248	13	1298	13	1298
-PROGRAM & ADMINISTRATIVE	9	370	11	618	11	829	11	752	11	772	11	793	11	815
-AUXILIARY ACTIVITY	0	0	0	0	0	0	0	0	0	0	0	0	0	0
UNRESTRICTED SPECIAL PURPOSE														
-BUREAU ACTIVITY	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-ALL OTHER	0	0	0	100	0	150	0	150	0	200	0	200	0	250
RESTRICTED	0	0	0	210	0	327	0	300	0	300	0	300	0	300
FEDERAL GRANTS & CONTRACTS	0	0	0	0	0	0	0	0	0	0	0	0	0	0
- SUBTOTAL	16	642	23	1455	24	2333	24	2340	24	2520	24	2591	24	2663

SPECIAL PROGRAMS

American Studies and Folklife Programs (OAmers and OFP). During FY 1986-91 the Office of Folklife Programs will continue to expand the Smithsonian Folklife Studies Series with publication of monographs/films based on scholarly research of folkways still practiced or in living memory in a variety of traditional cultures; publish papers and reviews; organize living presentations within exhibitions mounted by other bureaus; and plan and produce the annual Festival of American Folklife. Activities which had been under consideration for future year festivals but which cannot be provided within constrained out-years funding levels included permanent programs on traditions of the workplace and on Black American and Native American cultures. The festival will continue to present the diverse cultures and traditions found in the United States, as well as programs representing ethnic groups worldwide. The Office of American Studies will continue to sponsor a graduate program in American material culture in cooperation with various universities in and outside of the Washington, D.C. area; the activities and resources associated with this program currently are not expected to change in a major fashion.

Office of Fellowships and Grants (OFG). The Office will continue to administer the Institution's fellowship programs and visiting academic appointments and internships. Since 1979, most of these activities have been supported with nonappropriated trust funds. Approximately 85 fellowships and 30 other awards are offered each year. The trust funding projected will allow for an approximate thirty percent growth in the number of awards and appropriate increases in the stipends. Increases are also planned for the Regent's Fellowship program (shown separately below). In addition, through the Office the Institution provides opportunities for minority students via the cooperative education and internship program; this effort will grow as appropriate funding materializes. A modest program to support visiting scholars (including third world participants) and a symposium fund will be expanded over this period.

Office of Smithsonian Symposia and Seminars (OSSS). The Office of Smithsonian Symposia and Seminars will continue to design public service educational programs combining the increase of knowledge with the diffusion of knowledge. Its interdisciplinary approach involves the search for significant themes, commemorations, issues, or problems requiring attention of a broad variety of specialties in the humanities and sciences. Through symposia, seminars, and books it serves as a bridge within academia on the one hand, and on the other a link between academics, the general public, and youth preparing for the duties of citizenship. Three major projects will require most of the Office's resources in the next decade: (1) encouraging Smithsonian cooperation with research centers, colleges, and universities to improve Americans' understanding of other societies and cultures, especially in the context of the Smithsonian's new Quadrangle complex; (2) serving as part of a national and international network of educators and other specialists to help commemorate the two hundredth anniversary of the U.S. Constitution and Bill of Rights; and (3) designing international symposia and seminars for the five hundredth anniversary of the Columbian expedition to the New World. In addition, the Office will administer special projects of pan-institutional interest.

SMITHSONIAN INSTITUTION
APPLICATION OF OPERATING FUNDS
FY 1985 AND PROJECTED THROUGH 1991

TABLE 10 (1)

SPECIAL PROGRAMS	FY 1985		FY 1986		FY 1987		FY 1988		FY 1989		FY 1990		FY 1991	
	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)
AMERICAN STUDIES & FOLKLIFE PROGRAM														
FEDERAL SALARY & EXPENSES	9	698	8	711	8	735	8	735	8	735	8	735	8	735
UNRESTRICTED GENERAL														
-PROGRAM & ADMINISTRATIVE	13	514	13	642	13	655	14	674	14	694	14	715	14	736
-AUXILIARY ACTIVITY	0	0	0	0	0	0	0	0	0	0	0	0	0	0
UNRESTRICTED SPECIAL PURPOSE														
-BUREAU ACTIVITY	0	74	0	5	0	5	0	5	0	5	0	5	0	5
-ALL OTHER	0	429	0	35	0	35	0	40	0	40	0	40	0	40
RESTRICTED	0	320	0	379	0	214	0	200	0	200	0	200	0	200
FEDERAL GRANTS & CONTRACTS	0	43	0	592	0	852	0	850	0	850	0	850	0	850
-SUBTOTAL	22	2078	21	2364	21	2496	22	2504	22	2524	22	2545	22	2566
OFFICE OF FELLOWSHIPS & GRANTS														
FEDERAL SALARY & EXPENSES	11	315	9	273	9	278	9	278	9	278	9	278	9	278
UNRESTRICTED GENERAL														
-PROGRAM & ADMINISTRATIVE	4	143	4	120	4	129	4	133	4	137	4	141	4	145
-AUXILIARY ACTIVITY	0	0	0	0	0	0	0	0	0	0	0	0	0	0
UNRESTRICTED SPECIAL PURPOSE														
-BUREAU ACTIVITY	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-ALL OTHER	0	1303	0	1732	0	2051	0	2169	0	2634	0	2959	0	3269
RESTRICTED	0	38	0	75	0	66	0	15	0	15	0	15	0	15
FEDERAL GRANTS & CONTRACTS	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-SUBTOTAL	15	1799	13	2200	13	2524	13	2595	13	3064	13	3393	13	3707
OFFICE OF SYMPOSIA & SEMINARS														
FEDERAL SALARY & EXPENSES	3	96	3	99	3	200	3	100	3	100	3	100	3	100
UNRESTRICTED GENERAL														
-PROGRAM & ADMINISTRATIVE	2	132	2	148	2	213	2	156	2	160	2	165	2	170
-AUXILIARY ACTIVITY	0	0	0	0	0	0	0	0	0	0	0	0	0	0
UNRESTRICTED SPECIAL PURPOSE														
-BUREAU ACTIVITY	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-ALL OTHER	0	56	0	0	0	0	0	0	0	0	0	0	0	0
RESTRICTED	0	22	0	148	0	100	0	50	0	60	0	65	0	75
FEDERAL GRANTS & CONTRACTS	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-SUBTOTAL	5	306	5	395	5	513	5	306	5	320	5	330	5	345

Office of Elementary and Secondary Education (OESE). Growth in readership of the publication Art to Zoo is projected but can be accommodated within existing federal resources. Owing to federal funding strictures, no additional growth in responsibilities is anticipated over the planning period, except for serving as a liaison with the National Academy of Sciences on a new initiative in science and math education. On the trust fund side, a number of experimental educational materials kits have been developed and more such units may be developed on various art, history, and science subjects based on Smithsonian collections. These kits will be produced with the support of outside funding in cooperation with the Smithsonian Institution Press. Also in its experimental stages is a periodical based on Smithsonian research and collections and directed to young adolescents in schools across the nation. This is as a joint project with the Institution's Office of Public Affairs. Regional teacher oriented workshops, production of learning materials for hospitalized children, activities for disabled visitors, summer intern programs for talented young people and exceptional teachers from across the country, and a program to introduce minority high school students to career opportunities at the Smithsonian are all expected to be in place and functioning well over the planning period.

International Environmental Science Program (IESP). Over the five-year planning period, increasing attention will be paid to studies in tropical and subtropical regions where new knowledge is necessary to understand the complexities of biological diversity. Man-related activities, coupled with natural processes are causing severe disruptions to these ecosystems which serve as centers for important sources of food, pharmaceuticals and other products for man. The destruction of these ecosystems must be studied in order to develop a means to retard biotic degradation. During FY 1987-1991 additional sites are contemplated for study in the Neotropics and old world tropics to enhance efforts in biological diversity.

SMITHSONIAN INSTITUTION
APPLICATION OF OPERATING FUNDS
FY 1985 AND PROJECTED THROUGH 1991

TABLE 10 (2)

SPECIAL PROGRAMS	FY 1985		FY 1986		FY 1987		FY 1988		FY 1989		FY 1990		FY 1991	
	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)
OFC OF ELEMENTARY & SECONDARY EDUCATION														
FEDERAL SALARY & EXPENSES	6	294	7	329	7	350	7	339	7	339	7	339	7	339
UNRESTRICTED GENERAL														
-PROGRAM & ADMINISTRATIVE	2	95	3	175	3	197	3	202	3	213	3	218	3	225
-AUXILIARY ACTIVITY	0	0	0	0	0	0	0	0	0	0	0	0	0	0
UNRESTRICTED SPECIAL PURPOSE														
-BUREAU ACTIVITY	0	10	0	4	0	1	0	1	0	1	0	1	0	1
-ALL OTHER	0	10	0	0	0	0	0	0	0	0	0	0	0	0
RESTRICTED	0	22	0	31	0	30	0	100	0	150	0	200	0	200
FEDERAL GRANTS & CONTRACTS	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-SUBTOTAL	8	431	10	539	10	578	10	642	10	703	10	758	10	765
REGENT'S FELLOWSHIPS														
FEDERAL SALARY & EXPENSES	0	0	0	0	0	0	0	0	0	0	0	0	0	0
UNRESTRICTED GENERAL														
-PROGRAM & ADMINISTRATIVE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-AUXILIARY ACTIVITY	0	0	0	0	0	0	0	0	0	0	0	0	0	0
UNRESTRICTED SPECIAL PURPOSE														
-BUREAU ACTIVITY	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-ALL OTHER	0	172	0	140	0	140	0	150	0	175	0	200	0	200
RESTRICTED	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FEDERAL GRANTS & CONTRACTS	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-SUBTOTAL	0	172	0	140	0	140	0	150	0	175	0	200	0	200
INTERNAT'L ENVIRONMENTAL SCIENCE PROGRAM														
FEDERAL SALARY & EXPENSES	11	680	13	728	13	752	13	752	13	752	13	752	13	752
UNRESTRICTED GENERAL														
-PROGRAM & ADMINISTRATIVE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-AUXILIARY ACTIVITY	0	0	0	0	0	0	0	0	0	0	0	0	0	0
UNRESTRICTED SPECIAL PURPOSE														
-BUREAU ACTIVITY	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-ALL OTHER	0	0	0	0	0	0	0	0	0	0	0	0	0	0
RESTRICTED	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FEDERAL GRANTS & CONTRACTS	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-SUBTOTAL	11	680	13	728	13	752	13	752	13	752	13	752	13	752

Collection Management/Inventory Program. These funds have been used, beginning in FY 1979 with appropriation of \$500,000, to initiate and conduct the first complete inventory in the Institution's history. Approximately \$1,145,000 is being requested for FY 1987 to continue the program and to process the current inventory workload. The resources will be used for reconciling of records, maintaining a stable effort in documenting incoming objects, and automating various collection record systems throughout the Institution. Certain inventory tasks (varying from museum to museum) will be deferred or prolonged.

Collection Acquisition, Scholarly Studies, Education Program and Smithsonian Awards (CAHE). These trust funds support a variety of institutional activities such as purchase of special collections, workshops for minorities and the handicapped, educational conference and products, and meritorious research projects. Some increase in funding is projected if the Institution's revenue generating activities continue to perform in a good fashion.

Museum Support Center (MSC). Trends portrayed for FY 1987 through FY 1991 reflect plans to meet the initial operating and equipping requirements (exclusive of utilities) for the Center. Over the period, about \$23,000,000 is planned for investing in equipment requirements. Annual operating funds for administration and maintenance of the MSC are projected at about \$1,000,000 annually and costs of about \$2,500,000 to support the physical transfer of collections from museums are projected over the planning period. Funds for operational costs of program units which are involved in the MSC are included in the appropriate base of the units. Utilities are included in the Facilities Services chapter, along with security, building engineers, and other requirements.

SMITHSONIAN INSTITUTION
APPLICATION OF OPERATING FUNDS
FY 1985 AND PROJECTED THROUGH 1991

TABLE 10 (3)

	FY 1985		FY 1986		FY 1987		FY 1988		FY 1989		FY 1990		FY 1991	
	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)
SPECIAL PROGRAMS														
COLLECTIONS MANAGEMENT/INVENTORY PROGRAM														
FEDERAL SALARY & EXPENSES	40	1019	38	1121	38	1145	38	1145	38	1145	38	1145	38	1145
UNRESTRICTED GENERAL														
-PROGRAM & ADMINISTRATIVE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-AUXILIARY ACTIVITY	0	0	0	0	0	0	0	0	0	0	0	0	0	0
UNRESTRICTED SPECIAL PURPOSE														
-BUREAU ACTIVITY	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-ALL OTHER	0	0	0	0	0	0	0	0	0	0	0	0	0	0
RESTRICTED	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FEDERAL GRANTS & CONTRACTS	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-SUBTOTAL	40	1019	38	1121	38	1145	38	1145	38	1145	38	1145	38	1145
CARE, RES. OPPORT., SMITHSON AWARDS														
FEDERAL SALARY & EXPENSES														
UNRESTRICTED GENERAL	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-PROGRAM & ADMINISTRATIVE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-AUXILIARY ACTIVITY	0	0	0	0	0	0	0	0	0	0	0	0	0	0
UNRESTRICTED SPECIAL PURPOSE														
-BUREAU ACTIVITY	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-ALL OTHER	0	0	0	3300	0	3155	0	4450	0	5000	0	5000	0	5100
RESTRICTED	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FEDERAL GRANTS & CONTRACTS	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-SUBTOTAL	0	0	0	3300	0	3155	0	4450	0	5000	0	5000	0	5100
MUSEUM SUPPORT CENTER EQUIP./OPERATIONS														
FEDERAL SALARY & EXPENSES	45	4678	36	4891	36	6366	40	8540	40	3900	40	9385	40	2085
UNRESTRICTED GENERAL														
-PROGRAM & ADMINISTRATIVE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-AUXILIARY ACTIVITY	0	0	0	0	0	0	0	0	0	0	0	0	0	0
UNRESTRICTED SPECIAL PURPOSE														
-BUREAU ACTIVITY	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-ALL OTHER	0	83	0	151	0	0	0	0	0	0	0	0	0	0
RESTRICTED	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FEDERAL GRANTS & CONTRACTS	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-SUBTOTAL	45	4761	36	5042	36	6366	40	8540	40	3900	40	9385	40	2085

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Special Exhibitions Program. Projections of trust support are based on the continued good performance of the Institution's business, auxiliary, and Associates programs. This is a special Regents' program for funding meritorious exhibit proposals from bureaus which cannot be accommodated within available federal base resources. These efforts also may be partially funded with gifts and grants from outside donors.

SMITHSONIAN INSTITUTION
APPLICATION OF OPERATING FUNDS
FY 1985 AND PROJECTED THROUGH 1991

TABLE 10 (4)

SPECIAL PROGRAMS	FY 1985		FY 1986		FY 1987		FY 1988		FY 1989		FY 1990		FY 1991	
	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)
SPECIAL EXHIBITION PROGRAM														
FEDERAL SALARY & EXPENSES														
UNRESTRICTED GENERAL														
-PROGRAM & ADMINISTRATIVE														
-AUXILIARY ACTIVITY														
UNRESTRICTED SPECIAL PURPOSE														
-BUREAU ACTIVITY														
-ALL OTHER														
RESTRICTED														
FEDERAL GRANTS & CONTRACTS														
-SUBTOTAL														
JOHN F KENNEDY CENTER TRUSTEE GRANTS														
FEDERAL SALARY & EXPENSES														
UNRESTRICTED GENERAL														
-PROGRAM & ADMINISTRATIVE														
-AUXILIARY ACTIVITY														
UNRESTRICTED SPECIAL PURPOSE														
-BUREAU ACTIVITY														
-ALL OTHER														
RESTRICTED														
FEDERAL GRANTS & CONTRACTS														
-SUBTOTAL														
SPECIAL PROGRAMS - SUMMARY														
FEDERAL SALARY & EXPENSES														
UNRESTRICTED GENERAL														
-PROGRAM & ADMINISTRATIVE														
-AUXILIARY ACTIVITY														
UNRESTRICTED SPECIAL PURPOSE														
-BUREAU ACTIVITY														
-ALL OTHER														
RESTRICTED														
FEDERAL GRANTS & CONTRACTS														
-TOTAL														

ASSOCIATE PROGRAMS

Office of Membership and Development (OMD). The Office serves as the focus for fund raising activities of the Institution and oversees the operations of the National and Resident Associate Programs. Plans call for the development of a general fund raising brochure and more direct solicitation from foundation, corporations, and individuals, and renewed emphasis upon planned giving by individuals.

Smithsonian Magazine. Expenditures are expected to increase substantially due to continued cost increases associated with publication. Demand should remain strong, and the Magazine will continue to operate and produce a surplus for institutional program activities.

National Associate Program (SNAP). Continued expansion is forecast for contributing membership, lecture and seminar programs. The program will be moving to the Quadrangle in FY 1986.

SMITHSONIAN INSTITUTION
APPLICATION OF OPERATING FUNDS
FY 1985 AND PROJECTED THROUGH 1991

TABLE 11 (1)

	FY 1985		FY 1986		FY 1987		FY 1988		FY 1989		FY 1990		FY 1991	
	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)
ASSOCIATES PROGRAMS														
OFFICE OF MEMBERSHIP & DEVELOPMENT														
FEDERAL SALARY & EXPENSES	0	0	0	0	0	0	0	0	0	0	0	0	0	0
UNRESTRICTED GENERAL	15	857	17	1004	19	1000	20	948	20	976	20	1006	20	1036
-PROGRAM & ADMINISTRATIVE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-AUXILIARY ACTIVITY	0	0	0	0	0	0	0	0	0	0	0	0	0	0
UNRESTRICTED SPECIAL PURPOSE	0	11	0	10	0	12	0	13	0	14	0	14	0	15
-BUREAU ACTIVITY	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-ALL OTHER	0	14	0	25	0	0	0	0	0	0	0	0	0	0
RESTRICTED	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FEDERAL GRANTS & CONTRACTS	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-SUBTOTAL	15	882	17	1039	19	1012	20	961	20	990	20	1020	20	1051
SMITHSONIAN MAGAZINE														
FEDERAL SALARY & EXPENSES	0	0	0	0	0	0	0	0	0	0	0	0	0	0
UNRESTRICTED GENERAL	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-PROGRAM & ADMINISTRATIVE	91	52727	91	60765	93	63930	93	64940	94	68900	95	73130	96	77925
-AUXILIARY ACTIVITY	0	0	0	0	0	0	0	0	0	0	0	0	0	0
UNRESTRICTED SPECIAL PURPOSE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-BUREAU ACTIVITY	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-ALL OTHER	0	0	0	0	0	0	0	0	0	0	0	0	0	0
RESTRICTED	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FEDERAL GRANTS & CONTRACTS	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-SUBTOTAL	91	52727	91	60765	93	63930	93	64940	94	68900	95	73130	96	77925
NATIONAL ASSOCIATES PROGRAM														
FEDERAL SALARY & EXPENSES	0	0	0	0	0	0	0	0	0	0	0	0	0	0
UNRESTRICTED GENERAL	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-PROGRAM & ADMINISTRATIVE	30	11981	32	14385	32	14815	38	15255	39	15710	40	16180	41	16665
-AUXILIARY ACTIVITY	0	0	0	0	0	0	0	0	0	0	0	0	0	0
UNRESTRICTED SPECIAL PURPOSE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-BUREAU ACTIVITY	0	26	0	40	0	43	0	0	0	0	0	0	0	0
-ALL OTHER	0	0	0	0	0	0	0	0	0	0	0	0	0	0
RESTRICTED	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FEDERAL GRANTS & CONTRACTS	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-SUBTOTAL	30	12007	32	14425	32	14858	38	15255	39	15710	40	16180	41	16665

Resident Associate Program (SRAP). Plans call for strengthening of performing arts programs, expanding membership and broadening its composition, and developing new program offerings directed to specialized audiences. The Program will be headquartered in the Quadrangle in FY 1986.

Air and Space Magazine. The projections are expenditure estimates, and reflect start up costs related to the first few years of operation. Circulation is expected to be around two hundred thousand in the beginning. The effort should begin to produce some small surplus about the third year of operation, with initial investment recovered in the fourth year.

SMITHSONIAN INSTITUTION
APPLICATION OF OPERATING FUNDS
FY 1985 AND PROJECTED THROUGH 1991

TABLE 11 (2)

	FY 1985		FY 1986		FY 1987		FY 1988		FY 1989		FY 1990		FY 1991	
	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)
ASSOCIATES PROGRAMS														
RESIDENT ASSOCIATES PROGRAM														
FEDERAL SALARY & EXPENSES	0	0	0	0	0	0	0	0	0	0	0	0	0	0
UNRESTRICTED GENERAL	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-PROGRAM & ADMINISTRATIVE	47	3506	51	3700	54	3890	55	4060	56	4235	57	4420	58	4610
-AUXILIARY ACTIVITY														
UNRESTRICTED SPECIAL PURPOSE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-BUREAU ACTIVITY	0	19	0	0	0	0	0	0	0	0	0	0	0	0
-ALL OTHER	0	10	0	7	0	2	0	0	0	0	0	0	0	0
RESTRICTED	0	4	0	0	0	0	0	0	0	0	0	0	0	0
FEDERAL GRANTS & CONTRACTS														
-SUBTOTAL	47	3539	51	3707	54	3892	55	4060	56	4235	57	4420	58	4610
AIR & SPACE MAGAZINE														
FEDERAL SALARY & EXPENSES	0	0	0	0	0	0	0	0	0	0	0	0	0	0
UNRESTRICTED GENERAL	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-PROGRAM & ADMINISTRATIVE	0	0	21	6186	23	8786	23	8285	23	9110	23	10020	23	11025
-AUXILIARY ACTIVITY														
UNRESTRICTED SPECIAL PURPOSE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-BUREAU ACTIVITY	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-ALL OTHER	0	0	0	0	0	0	0	0	0	0	0	0	0	0
RESTRICTED	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FEDERAL GRANTS & CONTRACTS														
-SUBTOTAL	0	0	21	6186	23	8786	23	8285	23	9110	23	10020	23	11025
ASSOCIATES PROGRAMS-SUMMARY														
FEDERAL SALARY & EXPENSES	0	0	0	0	0	0	0	0	0	0	0	0	0	0
UNRESTRICTED GENERAL	15	857	17	1004	19	1000	20	948	20	976	20	1006	20	1036
-PROGRAM & ADMINISTRATIVE	168	68214	195	85036	202	91421	209	92540	212	97955	215	103750	218	110225
-AUXILIARY ACTIVITY														
UNRESTRICTED SPECIAL PURPOSE	0	11	0	10	0	12	0	13	0	14	0	14	0	15
-BUREAU ACTIVITY	0	45	0	40	0	43	0	0	0	0	0	0	0	0
-ALL OTHER	0	24	0	32	0	2	0	0	0	0	0	0	0	0
RESTRICTED	0	4	0	0	0	0	0	0	0	0	0	0	0	0
FEDERAL GRANTS & CONTRACTS														
-TOTAL	183	69155	212	86122	221	92478	229	93501	232	98945	235	104770	238	111276

BUSINESS MANAGEMENT

Business Management Office/Product Licensing. A reinvigorated Product Development and Licensing program will emphasize educational toys and other products which will increase public knowledge of Smithsonian collections and activities.

Museum Shops. Expanded shops are planned in the National Museum of Natural History and the National Air and Space Museum to improve customer services and to enhance merchandise presentation. The museum shop in the National Museum of African Art will move to the new Quadrangle facility. Overall, the museum shops will continue to exploit technological advances in retail management and aim for increasing professionalism in operations.

Mail Order Division. The Mail Order Division will continue to publish three main catalogues each year: Fall, Spring, and Summer. These may be supplemented by specialized catalogues designed to appeal to particular target markets and by advertising products in selected magazines. List segmentation will continue and will become increasingly refined. An expanded fulfillment facility is planned for 1986. Its computer has been upgraded to handle the growth in business that is anticipated.

SMITHSONIAN INSTITUTION
APPLICATION OF OPERATING FUNDS
FY 1985 AND PROJECTED THROUGH 1991

TABLE 12 (1)

	FY 1985		FY 1986		FY 1987		FY 1988		FY 1989		FY 1990		FY 1991	
	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)
BUSINESS MANAGEMENT														
BUSINESS MANAGEMENT OFFICE														
FEDERAL SALARY & EXPENSES	0	0	0	0	0	0	0	0	0	0	0	0	0	0
UNRESTRICTED GENERAL	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-PROGRAM & ADMINISTRATIVE	8	383	8	530	8	585	8	645	8	710	8	780	8	860
-AUXILIARY ACTIVITY														
UNRESTRICTED SPECIAL PURPOSE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-BUREAU ACTIVITY	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-ALL OTHER	0	0	0	0	0	0	0	0	0	0	0	0	0	0
RESTRICTED	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FEDERAL GRANTS & CONTRACTS	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-SUBTOTAL	8	383	8	530	8	585	8	645	8	710	8	780	8	860
MUSEUM SHOPS														
FEDERAL SALARY & EXPENSES	0	0	0	0	0	0	0	0	0	0	0	0	0	0
UNRESTRICTED GENERAL	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-PROGRAM & ADMINISTRATIVE	195	15219	199	16315	204	17100	218	18500	227	19400	236	20300	245	21200
-AUXILIARY ACTIVITY														
UNRESTRICTED SPECIAL PURPOSE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-BUREAU ACTIVITY	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-ALL OTHER	0	0	0	0	0	0	0	0	0	0	0	0	0	0
RESTRICTED	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FEDERAL GRANTS & CONTRACTS	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-SUBTOTAL	195	15219	199	16315	204	17100	218	18500	227	19400	236	20300	245	21200
MAIL ORDER DIVISION														
FEDERAL SALARY & EXPENSES	0	0	0	0	0	0	0	0	0	0	0	0	0	0
UNRESTRICTED GENERAL	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-PROGRAM & ADMINISTRATIVE	55	13157	68	14450	84	16770	94	18550	104	20550	114	22950	124	25460
-AUXILIARY ACTIVITY														
UNRESTRICTED SPECIAL PURPOSE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-BUREAU ACTIVITY	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-ALL OTHER	0	0	0	0	0	0	0	0	0	0	0	0	0	0
RESTRICTED	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FEDERAL GRANTS & CONTRACTS	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-SUBTOTAL	55	13157	68	14450	84	16770	94	18550	104	20550	114	22950	124	25460

Concessions. Construction of a restaurant addition to the National Air and Space Museum to meet public needs is under consideration with renovation of the restaurant facilities in the American History and Natural History buildings also planned. Other eating facilities will also be upgraded. New concessions contracts are expected to be negotiated in FY 1986.

Parking. No changes are foreseen in the operation of Smithsonian parking facilities other than periodic rate increases if necessary.

SMITHSONIAN INSTITUTION
APPLICATION OF OPERATING FUNDS
FY 1985 AND PROJECTED THROUGH 1991

TABLE 12 (2)

	FY 1985		FY 1986		FY 1987		FY 1988		FY 1989		FY 1990		FY 1991	
	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)
BUSINESS MANAGEMENT														
CONCESSIONS														
FEDERAL SALARY & EXPENSES														
UNRESTRICTED GENERAL	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-PROGRAM & ADMINISTRATIVE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-AUXILIARY ACTIVITY	1	1045	1	280	1	295	1	310	1	330	1	340	1	360
UNRESTRICTED SPECIAL PURPOSE														
-BUREAU ACTIVITY	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-ALL OTHER	0	0	0	0	0	0	0	0	0	0	0	0	0	0
RESTRICTED	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FEDERAL GRANTS & CONTRACTS	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-SUBTOTAL	1	1045	1	280	1	295	1	310	1	330	1	340	1	360
PARKING OPERATIONS														
FEDERAL SALARY & EXPENSES														
UNRESTRICTED GENERAL	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-PROGRAM & ADMINISTRATIVE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-AUXILIARY ACTIVITY	17	530	17	570	17	600	17	630	17	660	17	695	17	730
UNRESTRICTED SPECIAL PURPOSE														
-BUREAU ACTIVITY	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-ALL OTHER	0	0	0	0	0	0	0	0	0	0	0	0	0	0
RESTRICTED	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FEDERAL GRANTS & CONTRACTS	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-SUBTOTAL	17	530	17	570	17	600	17	630	17	660	17	695	17	730
BUSINESS MANAGEMENT-SUMMARY														
FEDERAL SALARY & EXPENSES														
UNRESTRICTED GENERAL	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-PROGRAM & ADMINISTRATIVE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-AUXILIARY ACTIVITY	276	30334	293	32145	314	35350	338	38635	357	41650	376	45065	395	48610
UNRESTRICTED SPECIAL PURPOSE														
-BUREAU ACTIVITY	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-ALL OTHER	0	0	0	0	0	0	0	0	0	0	0	0	0	0
RESTRICTED	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FEDERAL GRANTS & CONTRACTS	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-TOTAL	276	30334	293	32145	314	35350	338	38635	357	41650	376	45065	395	48610

ADMINISTRATIVE, FINANCIAL AND OTHER SUPPORT SERVICES

Central Management Offices. The planning period will see a continued examination of the organization structure and resource base of the Institution with necessary changes to strengthen functional relationships, coordination and communications. Close oversight will be provided to the development of research and scholarship. A new program in collaboration with other organizations may be developed to strengthen science education in the United States. Plans for the exhibition of information theory and technology will be developed in collaboration with industrial and other organizations. Administrative and support functions will be monitored to assure their responsiveness and performance. The Institution's planning function will be given greater weight in relationship to the budget process and will build on recent efforts to gain greater involvement of bureaus and offices in decision-making processes. Continued strong attention will be given to the legal oversight of and counseling on Smithsonian programs and to improvement of financial management and internal control systems. The Institution's audit and investigative programs will perform additional positive and preventive work. The Office of Management and Budget, Congress and other organizations will be kept informed of plans and programs. Legislative initiatives will be developed and presented. Capital improvement, safety, security and health programs will be strengthened and monitored for effectiveness. The Quadrangle will be opened and operated. Overall resources expected in FY 1991 for central administration of the Institution amount to about \$5,000,000 and 53 staff. Any growth that occurs will be directed to the requirements of legal counsel, financial management and the audit and investigative function.

Specialized Administrative and Technical Offices. Continued attention will be given to providing timely and high quality services to Smithsonian bureaus and offices and to the public where appropriate. Automatic data processing will be applied more comprehensively in budget, personnel, financial management, procurement, photographic services, equal opportunity and other areas to improve efficiencies, cope with heavier workloads, provide more effective communications and strengthen controls. Legislated changes to the Civil Service retirement, reduction in force, and performance management systems will be implemented. Trust employee benefits programs will be studied and desirable changes put in effect. Benefits communications for all employees will be improved. Statistical analyses and reporting of equal opportunity data will become more useful as management tools and further affirmative action training will be provided to managers and supervisors. Employment opportunities and program accessibility for disabled persons will be stressed. The expansion of the accounting service units, on-line query systems, and daily financial updating will contribute to improved financial management and accountability. Increased efficiency in transaction processing and reporting will be of primary importance. An improved system of small purchases will be installed throughout the Institution to achieve greater accountability and control for added goods and services and to facilitate timely payment of the accounts payable. Contracting procedures, including more analysis of negotiated procurements, will be strengthened and the property management system will rely more heavily on automated procedures. Progress should be made with regard to replacing the current accounting system. Information

resource management efforts will concentrate on final installation of the bibliographic system, and on development of a collections information system to support collections management and research. A communications network will be installed between and within buildings to allow access to new computer systems. The nitrate film conversion project will be completed and improved data processing techniques will be applied to photographic work order control and analysis. Cold storage and the study of preservation of photographic materials will be expanded and the inventory will be continued using video disc and other modern technology. Duplicating equipment will be upgraded and new slide programs and posters will be prepared for public sales. Additional assistance will be given to the Institution's professional research staff to locate and obtain grant and contract support. A phased program of contract service reviews will be continued and internal control problems will be inventoried and corrections monitored. Travel assistance will be given including the management of the GSA credit card program. Special events will be planned and managed to assist in presenting Smithsonian exhibitions and other programs. Support will be given to the operations of programs in the Museum Support Center and the Quadrangle. Overall resources expected in FY 1991 for specialized administrative and technical services amount to about \$20,000,000 and 395 staff. If any additional resources become available over the planning period they will be directed at automation, personnel, financial and procurement management, and replacement and upgrading of duplicating and other equipment.

Facilities Offices. During the planning period, work will continue to make the Museum Support Center and the Quadrangle operational. The restoration and upgrading programs for the Institution's facilities will show little increase beyond that needed to cover anticipated inflation in construction activities and will require curtailment or extended phasing of some projects necessary to maintain the Institution's aging physical plant. Energy and communication management programs will be monitored closely to control costs. In order to remain within the President's budget projections during the planning period, growth required to improve the security and maintenance of Smithsonian facilities will be curtailed. Security personnel required to alleviate a long established shortage will not be added, and the program to modernize alarms and other security installations throughout the Institution's facilities will be slowed, as will planned enhancements to the personnel security, occupational health, industrial hygiene, fire protection and safety programs. Resources required for basic operation and maintenance of SI facilities will remain below minimum levels required and new activities that would fully correct energy conservation and preventive maintenance problems will not be possible to undertake. Architectural, engineering and construction management support required for the Restoration and Renovation of Buildings (R&R) program, which has doubled over the past five years, will not be available and will slow efforts to make this program more effective. Increases during the planning period are expected for the security and maintenance of the Quadrangle, bringing total expected resources in FY 1991 to about \$65,000,000 and 1,320 staff.

SMITHSONIAN INSTITUTION
APPLICATION OF OPERATING FUNDS
FY 1985 AND PROJECTED THROUGH 1991

TABLE 13 (1)

	FY 1985		FY 1986		FY 1987		FY 1988		FY 1989		FY 1990		FY 1991	
	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)
CENTRAL MANAGEMENT OFFICES														
CENTRAL MANAGEMENT OFFICES-SUMMARY														
FEDERAL SALARY & EXPENSES	32	1608	35	1753	35	1781	35	1781	35	1781	35	1781	35	1781
UNRESTRICTED GENERAL														
-PROGRAM & ADMINISTRATIVE	18	1446	16	2032	17	2837	17	2937	18	3030	18	3108	18	3160
-AUXILIARY ACTIVITY	0	0	0	0	0	0	0	0	0	0	0	0	0	0
UNRESTRICTED SPECIAL PURPOSE														
-BUREAU ACTIVITY	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-ALL OTHER	0	140	0	34	0	27	0	27	0	27	0	28	0	28
RESTRICTED	0	108	0	108	0	105	0	95	0	95	0	95	0	95
FEDERAL GRANTS & CONTRACTS	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-TOTAL	50	3302	51	3927	52	4750	52	4840	53	4933	53	5012	53	5064
SPECIALIZED ADMIN & TECH OFFICES-SUMMARY														
FEDERAL SALARY & EXPENSES	215	9785	215	10658	217	11096	217	11096	217	11096	217	11096	217	11096
UNRESTRICTED GENERAL														
-PROGRAM & ADMINISTRATIVE	151	5626	170	6356	175	7409	176	7654	176	7886	176	8113	176	8346
-AUXILIARY ACTIVITY	2	79	0	0	0	0	0	0	0	0	0	0	0	0
UNRESTRICTED SPECIAL PURPOSE														
-BUREAU ACTIVITY	14	1095	2	84	2	89	2	88	2	90	2	92	2	95
-ALL OTHER	0	488	0	852	0	312	0	302	0	2	0	2	0	2
RESTRICTED	0	6	0	3	0	1	0	0	0	0	0	0	0	0
FEDERAL GRANTS & CONTRACTS	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-TOTAL	382	17079	387	17953	394	18907	395	19140	395	19074	395	19303	395	19539
FACILITIES OFFICES-SUMMARY														
FEDERAL SALARY & EXPENSES	1091	49058	1184	52560	1276	57865	1298	59141	1299	60125	1301	61183	1301	62269
UNRESTRICTED GENERAL														
-PROGRAM & ADMINISTRATIVE	16	1422	16	1606	16	1733	16	1785	16	1837	16	1892	16	1947
-AUXILIARY ACTIVITY	0	0	0	0	0	0	0	0	0	0	0	0	0	0
UNRESTRICTED SPECIAL PURPOSE														
-BUREAU ACTIVITY	5	41	0	0	0	0	0	0	0	0	0	0	0	0
-ALL OTHER	2	106	3	239	3	273	3	263	3	272	3	272	3	273
RESTRICTED	0	7	0	1	0	1	0	1	0	1	0	1	0	1
FEDERAL GRANTS & CONTRACTS	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-TOTAL	1114	50634	1203	54406	1295	59872	1317	61190	1318	62235	1320	63348	1320	64490

SMITHSONIAN INSTITUTION

APPLICATION OF OPERATING FUNDS

FY 1985 AND PROJECTED THROUGH 1991

TABLE 13 (2)

	FY 1985		FY 1986		FY 1987		FY 1988		FY 1989		FY 1990		FY 1991	
	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)
ADMIN, FIN'L & OTHER SUPPORT SVCS														
ADMIN, FIN'L & OTHER SUPPORT SVCS - SUMMARY														
FEDERAL SALARY & EXPENSES	1338	60451	1434	64971	1528	70742	1550	72018	1551	73002	1553	74060	1553	75146
UNRESTRICTED GENERAL	185	8494	202	9994	208	11979	209	12376	210	12753	210	13113	210	13453
-PROGRAM & ADMINISTRATIVE	2	79	0	0	0	0	0	0	0	0	0	0	0	0
-AUXILIARY ACTIVITY	19	1136	2	84	2	89	2	88	2	90	2	92	2	95
UNRESTRICTED SPECIAL PURPOSE	2	734	3	1125	3	612	3	592	3	301	3	302	3	303
-BUREAU ACTIVITY	0	121	0	112	0	107	0	96	0	96	0	96	0	96
-ALL OTHER	0	0	0	0	0	0	0	0	0	0	0	0	0	0
RESTRICTED														
FEDERAL GRANTS & CONTRACTS														
-TOTAL	1546	71015	1641	76286	1741	83529	1764	85170	1766	86242	1768	87663	1768	89093

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APPENDIX II

COLLECTIONS RELATED RESEARCH

The results of curatorial research on the collections in the Freer Gallery of Art are most visible in exhibitions. However, additional research is made available to the public through collection research records, free gallery leaflets, public lectures, and in published papers, articles and books. Specific areas of current research in Japanese art include a sequential study of porcelains, the study of Mino and Seto wares, clan patronage of Japanese ceramics during the Edo period, and other topics such as calligraphy and theater in the Edo period.

In the field of Chinese art, research continues on Chinese calligraphy and paintings of the Sung, Yuan, Ming and Ch'ing dynasties. Specific topics included K'un-ts'an (1612-ca. 1680), Mt. Juang and Chang Ta-ch'ien (1899-1983); the periodization of Yen Chen-ch'ing's (708-784) calligraphic influence; and Huang T'ing-chien's (1045-1105) cursive script and his influence.

In 1973 the Freer published a catalogue, Chinese Figure Painting. This is the only scholarly study in this field and the catalogue has been out of print for seven years. Revision of this original text for publication in 1986 has necessitated a comprehensive review of all literature on that subject during the past twelve years.

In the field of Indian art, research during the last year focused on the art and architecture of 16th century Mughal India. A primary interest has been the development and formation of a Mughal aesthetic and the formulation of a methodology for approaching the works of art made for the emperor Akbar during his years at Fatehpur-Sikri. Several publications will result from this research as well as an international symposium on the art, architecture and culture of Fatehpur-Sikri as part of the Festival of India.

The Technical Laboratory of the Freer Gallery is renowned for its research activities, in addition to the ongoing conservation and restoration of objects in the collection. Research includes: casting methods, corrosion, and lead-isotope ratios in Chinese bronzes; colors of the copper-tin-lead alloy system; Oriental painting materials, including pigments and inks; and technical examination of Islamic metal work for the exhibition and catalogue mentioned above. Continuing research includes lead-isotope ratios in pigments and bronzes from Asia, studies on Chinese ink samples, identification of early Korean painting materials, deterioration mechanisms on East Asian paintings, corrosion on archaeological metal objects, the dating of ancient silver from its microstructure, and improved methods for analysis of archaeological metals. A survey of pigments on Japanese Ukiyo-e paintings in the Freer has been completed and is being reviewed for publication.

At the National Museum of American Art, three recently donated collections provide the basis for scholarly exhibitions and publications. A group of more than two hundred paintings and sculptures by black artists of the nineteenth century was researched for the exhibition and catalogue entitled Sharing Traditions, now traveling to sixteen museums across the country. A group of more than three hundred artworks donated by the Container Corporation of America has been studied in anticipation of a fall 1985 exhibition drawn from that collection of twentieth-century American art, and is the focus of a major research effort, to prepare for a 1987 exhibition.

During FY 1985, the research, exhibition, and publication programs of the Museum were focused on permanent collections and this emphasis will continue at least through 1988. The collection of art works and archival source material in the Museum's Joseph Cornell Study Center provide the impetus for a catalogue raisonne of the artist's works, to be published in 1987-1988 and authored by one of the Museum's curators. Similarly, the Museum's concentration of paintings by Albert Pinkham Ryder -- the largest collection of his work in existence -- has inspired preliminary planning for a major exhibition of his work in 1988, accompanied by a scholarly catalogue. Other significant collections -- murals and mural studies commissioned by the U.S. Postal Service between 1935 and 1943, paintings and drawings by Romaine Brooks, and Pueblo Indian watercolors -- are being conserved and studied in anticipation of small traveling exhibitions accompanied by educational publications.

Among the current research programs at the National Portrait Gallery are a study of the portraits done by the prominent 20th century sculpture Gaston Lachaise (in preparation for a major exhibition and book); preparation of a book on the life and work of early American painter, James Earl; research into the history of radio and television broadcasting; and identification and study of the portraits of Henry Inman, for a major exhibition and book. An extensive study of American portrait painting from 1700 to 1789 is being undertaken and the resulting book and exhibition will explore the relationship between artists in the new world and the old, with special attention to Great Britain as a source for the prevalent style in American art of the period. Others are commencing a study on portraits of American jurists for a projected exhibition and publication and also are beginning an extensive research project to document the commissioning of cover portraits for TIME Magazine; the originals of these portraits are a notable part of the Gallery's collection of modern American portraiture.

At the National Air and Space Museum, the curatorial staff and visiting researchers use artifacts as evidence in historical research. This year the Wright brothers 1903 flyer was completely restored. The Museum's records indicated that the engine displayed was not from the first 1903 flights, but as the airplane and power plant were dismantled, much of the engine revealed itself to be the original. New blueprints and a better knowledge of the engineering of this and other airplanes have resulted from these studies and restorations. NASM curators recently rediscovered a pyrheliometer, a device which measures the energy given off by the sun, belonging to Smithsonian Secretary Charles Greeley Abbot. This find will help researchers understand its construction and mode of

operation in early astrophysical research. It will also serve as a means of comparison with a similar instrument found in the National Museum of American History collection on the Mall. Such instruments provide a unique understanding of the development of scientific experimentation.

At the Museum's Center for Earth and Planetary Studies, the collection of more than 200,000 planetary images is the core material for research on planetary surfaces. Using manned and unmanned spacecraft photographs, geologists at the Center are studying the origin of surface features, and mapping the distribution of certain types of landforms on the planets and their moons. The collection of Space Shuttle photographs is likewise used for analyses of Earth's surface features, particularly in arid lands.

At the Cooper-Hewitt Museum, permanent collection items are usually not on view except in the context of temporary exhibitions. Collections research, therefore, frequently supports and relates with the Museum's outstanding and varied schedule of special, thematic shows. Upcoming exhibitions will deal with several different collection groups in this manner: "20th Century Photographs of Paris by Therese Bonney"; "Fans"; "Printed Fabrics"; and "Locks and Keys".

Additionally, research continues on drawings of French architect Gilles-Marie Oppenord, many of which are represented in the collection. This will result in an eventual monograph. The Museum's Master Degree Program in the History of the Decorative Arts also presents annual opportunities to plan and execute directed research by graduate students in the various areas of the collections. Such work may lead to a thesis, an exhibition and/or a separate publication.

The National Museum of Natural History/Museum of Man, with its vast collections of biological, mineral, and anthropological artifacts, is the world leader in collections-oriented research. Most of the numerous research projects carried on by more than two hundred staff and other scientists involve and are dependent upon the study of specimens and objects in these collections.

In anthropology, Athabaskan bead work is being studied to determine the relations between Athabaskans in Canada and Apaches and Navajos in the southwestern United States. In cooperation with the Kiowa museum, shield models are being studied to examine how ideology is expressed through material culture. Also, native Americans from various areas are completing research on the collections in planning for their own museum exhibits, making replicas of objects for their own use and seeking inspiration for their arts.

The Museum's Registry of Tumors in Lower Animals, which has 5,000 specimens of fish, shellfish, and other animals with various types of tumors, is the world's only clearinghouse for information on cancerous growths in these animals. The increasing numbers of cancerous tumors being found in fish and shellfish living in chemically polluted waters underscore the importance of this collection.

Research on comprehensive collections of the fauna of marine caves has been conducted with colleagues from several other institutions for the past five years. These valuable collections are the basis of considerable systematic, evolutionary, and biogeographic research by invertebrate zoologists. The research has led to hypotheses on the origins, evolution and dispersal of this unique fauna and has precipitated new formal hypotheses about the distribution of animals via the action of plate tectonics and the use of cryptic habitats on the sea floor. Also in invertebrate zoology, long-term collecting and research programs are being conducted on the isolated Indian Ocean island of Aldabra and on small islands in the Caribbean off Belize. The objectives of this collections-oriented research are to document the biological diversity and to determine the ecological interactions in these environments. Information and understanding gained are applicable to similar habitats elsewhere that are threatened or endangered.

The National Entomological Collections at NMNH, containing 30 million specimens, serve as the foremost resource for research scientists worldwide. Every year hundreds of thousands of insect specimens are loaned to researchers in universities and institutes, and this material provides the basis for many of the descriptions of the approximately 10,000 new species published each year. A simple analysis of one recent issue of an entomological journal (July 1985 Proceedings of the Entomological Society of Washington) shows that 75% of the insects described as new therein were either from Smithsonian-loaned material or the specimens are being sent here for deposit.

The large collection of dried plant specimens in the Department of Botany's Herbarium of the Washington-Baltimore area recently provided the basis for producing a documented list of the plant species collected over more than a hundred years in the area of the District of Columbia now known as Rock Creek Park. This list was prepared at the request of the National Park Service to be used as a tool in managing the plant resources of the Park, particularly the rare and endangered species.

Geologists have been collecting the ongoing eruptive products of the Mount St. Helens Volcano since its catastrophic eruption in May 1980. Studying the changing chemistry and gas content of successive lavas helps scientists to understand what is driving the volcano. Drill cores from the Nile Delta are being studied to document the recent geological history and to chart the Delta's erosion, which has increased alarmingly since the construction of the Aswan Dam. This erosion could have dramatic effects on Egyptian agriculture. In paleobiology, microfossil collections are providing a basis for studying geological history of the Mediterranean Basin.

In vertebrate zoology, the unique collection of fossil bird remains is a crucial resource for the ongoing studies of newly found bird fossils on oceanic islands. Without the existing collection, comparisons could not be made, the new finds could not be identified, and evidences for extinct bird faunas on these islands could not be evaluated. The findings on extinct bird faunas are helping scientists to understand the history of human disturbances on the islands. Detailed analysis of the wrists of flying squirrels, based on anatomical study of NMNH specimens, has

resulted in the conclusion that all flying squirrels were derived from a common ancestor. This study laid to rest an hypothesis that gliding in flying squirrels evolved more than once.

In the National Museum of American History, the collections are providing the basis for a number of scholarly projects. For example, the Museum is studying the transfer of American technology to Prussia in the 19th century, focussing on such artifacts as rolled iron and steel rails adopted by Prussia after the American example, and on the John Bull locomotive, an American adaptation of a British import adopted in turn by Prussian railroad engineers. The Museum is examining laboratory equipment in molecular biology as a key factor in the shaping of research fields in American biology. A study of manufacturing details of 19th-century British scientific instruments as evidence of the maker and the shop is underway. Also underway is a research project on the Bond clock shop on display at NMAH, looking at this collection of clock-making tools as evidence of 19th-century precision manufacturing and as the basis for scientific instrument making in the period. Based on the Museum's collections of political iconography, the Museum is pursuing a comparative study of the meaning of the suffragist movement and of the women's movement of the 1970s. A study of American political campaigns is using the campaign holdings and a study of comparative gender roles in American history is based upon costume holdings. An important study of the cultural meaning of American advertising uses, in part, the advertising collections. In addition, catalogue projects are underway on textile-machinery patent models, on violins and other bowed string instruments, and on puppets.

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